# **Results**

The results of the present study are presented in the following parts:-

- **Part I:** Socio demographic characteristic of the studied sample, (Tables 1 4).
- **Part II**: Women's knowledge regarding breast cancer and mastectomy, (Tables 5 12).
- Part III: Aspects of quality of life, (Tables 9 14) & (figure ,1).
- Part IV: Statistical relation, (Tables 15 19).

#### Part (I): Demographic characteristic of the studied sample, (table 1-4).

**Table (1):** Distribution of studied sample according to socio demographic characteristics (n=160).

Socio-demographic	N	%
characteristics	19	70
Age in groups		1
25-	12	7.5
35-	53	33.1
45-	55	34.4
>55	40	25.0
Range		5-64
Mean±SD	48.025	5±8.420
Residence		
Urban	79	49.4
Rural	81	50.6
Status		
Married	103	64.4
Single	20	12.5
Widow	37	23.1
Education		•
Illiterate	54	33.8
Primary	44	27.5
Secondary	48	30.0
Higher education	14	8.7
Family size		
3	9	5.6
4	47	29.4
More than 4	104	65.0
Job		
Work	44	27.5
House wife	116	72.5
Family income		
Enough	56	35.0
Not enough	104	65.0

**Table(1):** Shows demographic characteristic of the studied sample, the present study reveals that 34.4% of studied sample ages 44- years. According to type of residence ,50.6% of them from village. According to level of education, 33.8% of them were illiterate and 64.4% of them were married .According to the family size 65% were having more than 4 person . Concerning of job 72.5% were housewives, and 65% of them had not enough income.

**Table (2):** Distribution of studied sample according to their history from medical record (n=160).

	NT	0/	Chi-square		
Items	N	%	$\mathbf{X}^{2}$	P-value	
Age of menarche	-1			-1	
12 -	119	74.4	20.025	0.000	
14-	41	25.6	38.025	0.000	
Regularity of the menstruation		1			
A regular monthly cycle	87	54.4			
irregular menstrual cycle	2	1.4	76.513	0.000	
The menstrual cycle interrupted	71	44.2	1		
Amount of the blood during mens	truation	•			
Large	7	7.8			
Moderate	75	83.3	101.267	0.000	
Few	8	8.9	1		
Age of menopause		•			
35- years	2	2.3			
40- years	18	21.2	75.694	0.000	
45- years	65	76.5	1		
Age of first pregnancy					
Less than 20	143	89.4	00.225	0.000	
20 -	17	10.6	99.225	0.000	
Number of pregnancies	1	-	-1	1	
One time	5	3.1			
Twice	45	28.1	43.300	0.000	
Three times	51	31.9		0.000	
more than 3 times	59	36.9	1	l	
Number of abortions	II.		•	II.	
One	26	16.2			
Two	10	6.3	221 600	0.000	
More than two	2	1.2	231.600	0.000	
No applicable	122	76.3	1		
Age of last pregnancy		•			
25-	44	27.5			
35-	116		32.400	0.000	
	116	72.5			
Type of infant feeding after birth					
Breastfeeding	146	91.2	100 000	0.000	
Artificial feeding	14	8.8	108.900	0.000	
Type of contraception used					
Pills	84	52.5			
Monthly injection	6	3.8	83.550	0.000	
Three months injection	25	15.6			
Loope	45	28.1			
Period of used it	•	•	•	•	
One year	70	43.7			
For 2 years	75	46.9	106.950	0.000	
More than 4 years	12	7.5			
Do not used	3	1.9			

**Table (2):** Shows that 74.4% of the studied sample had started menstruation at 12 years. 54.4% of them had a regular monthly menstruation. Also 83.3% of them had moderate amount of blood during the menstruation. 76.5% of studied sample had last menstruation at age 45- years. The present study reveals that 89.4% of the women had first pregnancy at age less than 20 years. 31.9% of them had more than 3 times of pregnancies. 76.3% of them had not abortion . 72.5% of studied sample had last pregnancy at age 35- years. 91.2% of them used breast feeding after birth. 52.5% used contraceptive pills and 46.9% of them used it for more than two years.

**Table(3):** Distribution of the studied sample according to their medical history (n=160).

		0.4	Chi-square		
Items	Items N %		$\mathbf{X}^2$	P-value	
Disease discover					
By accident	132	82.5			
After breast pain	1	0.6	290.250	0.000	
Change of the breast or nipple	3	1.9	290.230	0.000	
After physician examination	24	15.0			
Date of the operation					
less than a month	79	49.4	0.025	0.874	
From 1-2 month	81	50.6	0.023	0.674	
Type of surgical intervention					
Tumor lumpectomy	23	14.4	81.225	0.000	
Total mastectomy	137	85.6	81.223	0.000	
Relatives with breast cancer					
Mother	15	9.4			
Sister	9	5.6			
Aunt	51	31.9	127.000	0.000	
Grandmather	6	3.8			
No	79	49.3			

**Table (3):** Shows that 82.5% of the studied sample discovered the disease by accident. According to type of surgical intervention 85.6% of them had total eradication of the breast. 50.6% of them had the surgery since 1-2 months. 50.7% of them had history of breast cancer among first degree relationship.

**Table(4)**:Distribution of the studied sample according to their physical health problem after mastectomy (n=160).

	Y	es
Items	N	%
Face (paller).	115	71.9
Poor oral hygien (yellow / brown last).	100	62.5
Under weight.	121	75.6
Hair loss.	144	90.0
Hypertension (> 140/90).	64	40.0
Edema of the arm.	157	98.1
Gingiva (Swallen / red / pus).	42	26.3
Tongue mist and shiny.	65	40.6
Chest (Expiratory wheeze).	39	24.4
Infected waund (s).	70	43.8
Conjuctiva moist and pink.	129	80.6
Fever (above 38c).	141	88.1
Palpate / tender lymph nodes	55	34.4

**Table (4):** Shows that 71.9% of studied sample had face paller. 62.5% of them had poor oral hygiene. 75.6% were under weight, 90% of studied sample had hair loss. Also 98.1% of them had edema of the arm. 80.6% of studied sample had conjunctiva moist and pink. As 88.1% of them had fever.

According to research question (No:2) is women knowledge ,attitude and practice are influenced by mastectomy? table(5-7&12- 14) & figure 1.

# Part II: Women's knowledge regarding breast cancer and mastectomy.

**Table (5):** Distribution of studied sample according to their knowledge regarding breast cancer and mastectomy (n=160).

	N	0/	Chi-square		
Correct knowledge		%	$X^2$	P-value	
* Breast cancer meaning	<u>I</u>				
Malignant disease	160	100.00			
* Factors causing the disease	I				
Genetic	89	55.6			
Late menopause	1	0.6			
Women don't lactate	4	2.5	220.125	0.000	
Obesity	1	0.6			
Don't know	65	40.6			
Signs and symptoms	I.				
Breast tumor	155	96.9	140.625	0.000	
Change in breast size	147	91.9	112.225	0.000	
Discharge from the breast	102	63.7	12.100	0.001	
Shrinking of the breast skin	49	30.6	24.025	0.000	
Breast pain	157	98.1	148.225	0.000	
Don't know	1	0.6	156.025	0.000	
Methods of early detection of the diseas	se				
Breast self-examination	79	49.4	0.025	0.874	
Mammogram ray	145	90.6	105.625	0.000	
Clinical breast examinations	11	6.9	119.025	0.000	
Pathology test	108	67.5	19.600	0.000	
I do not know	0	0.0			
The side effects after the mastectomy					
Hair loss due to drugs	3	1.9	136.900	0.000	
Fatigue	80	50.0	0.000	1.000	
Swelling of the arm	154	96.2	148.225	0.000	
Inflammation of the skin	13	8.1	112.225	0.000	
The expectations after the mastectomy					
Return or recurrence of the disease	96	60.0			
Re-use the arm swollen	16	10.0	152 100	0.000	
Resumption of sexual relations	74	46.2	152.100	0.000	
Arm exercises can prevent muscle cramps	10	6.2			
Women health needs after mastectomy					
Breast self-examination every month	75	46.9	0.625	0.429	
Avoid measuring the blood pressure from the affected arm	128	80.0	57.600	0.000	
Wash area of the surgery with warm water	15	9.9	105.625	0.000	

<sup>\*</sup> These answer mutual

**Table(5):** Shows that 100% of the studied sample had correct answer about breast cancer as malignant disease. 55.6% of them listed the factor causing disease as genetic factor .According to the signs and symptoms, 96.9% of studied sample said that they had breast tumor and 91.9% of them had changed in breast size. 90.6% of them detected disease by mammogram x - ray. According to the side effects after mastectomy 96.2% of studied sample said swelling in the arm. 60% of studied sample knowledge about the expectation after mastectomy was recurrence of the disease. According to women health needs after mastectomy 80% said` avoid measuring blood pressure from the affected arm.

**Table (6):** Total knowledge regarding breast cancer and mastectomy (n=160).

Correct	Go	Good		Average		Poor		Chi-square	
knowledge	No	%	No	%	No	%	$\mathbf{X}^2$	P-value	
Total							61.28	<0.001*	
women's	31	19.4	100	62.5	29	18.1			
knowledge									

**Table (6):** Shows that 62.5% of studied sample had average knowledge regarding breast cancer and mastectomy.

**Table(7):** Distribution of studied sample regarding to their practice of breast self examination (n=160).

		Correctly done		Incorrect done		done	Chi-square	
Items	N	%	N	%	N	%	$\mathbf{X}^2$	P- value
Stand before mirror look for puckering dimpling or scaling of the skin.	0	0.0	1	0.6	159	99.4	156.025	0.000
Raise the arm over head.	0	0.0	0	0.0	160	100.0		0.000
Use the pads of the second, third and fourth fingers to feel breast firmly.	0	0.0	4	2.5	156	97.5	144.400	0.000
Beginning at the outer edge.	0	0.0	16	10.0	144	90.0	102.400	0.000
Press the feat part of your fingers in circles.	0	0.0	36	22.5	124	77.5	48.400	0.000
Moving circles in small and slowly around the breast.	1	0.6	51	31.9	108	67.5	107.488	0.000
Gradually work to ward the nipple and cover the whole breast.	2	1.2	48	30.0	110	68.8	110.150	0.000
Pay special attention to area between the breast and under arm.	11	6.9	38	23.7	111	69.4	100.363	0.000
Feel for any unusual lump of masses under skin.	13	8.2	37	23.1	110	68.7	95.713	0.000
Gently squeeze the nipple of the breast between lump and index finger to check for any discharge	13	8.1	37	23.1	110	68.8	95.713	0.000

**Table (7):** Shows studied sample practice regarding to breast self examination was not done toward raise the arm over head followed stand before mirror look for puckering dimpling or scaling of the skin, followed use the pads of the second, third and fourth fingers to feel breast firmly, followed beginning at the outer edge 100%, 99.4%, 97.5%, 90% respectively.

**Table (8):** Total practice of studied sample for breast self examination (n=160).

Practices of breast self examination						
		N	%			
Unsatisfactory		148	92.5			
Satisfactory		12	7.5			
Tot	Total		100			
Chi gamana	$\mathbf{X}^2$	115.6				
Chi-square	P-value	<0.001*				

**Table (8):** Shows that 92.5% of studied sample had unsatisfactory practice of breast self examination.

**X** 

According to research question (No:1) How does mastectomy affect the women's quality of life?(Tables 9-14).

## Part(III): Aspects of quality of life.

**Table (9):** Distribution of the studied sample according to their daily living activities (personal hygiene and nutrition) after mastectomy (n=160).

			Chi-square		
Items	N	%	$\mathbf{X}^2$	P- value	
Times / week shower					
Once / week	8	5.0			
Twice / week	83	51.9	59.638	0.000	
three or more times / week	69	43.1			
Type of bathing					
full bath	16	10.0	102.400	0.000	
Partial bath	144	90.0	102.400	0.000	
Teeth care /day					
one-time	38	23.7			
Twice, morning and night	58	36.3	51.732	0.000	
three times	1	0.6	31./32	0.000	
Nothing	63	39.4			
Number of meals /day					
two meals	71	44.4	79.738	0.000	
Three meals	88	55.0	19.136	0.000	
From four to six meals	1	0.6	155.000	0.000	
* Eating healthy food as					
Fresh fruits and vegetables	120	75.0	40.000	0.000	
reducing carbohydrates and fat	61	38.1	9.025	0.003	
preparing food overalls or olive oil	38	23.7	44.100	0.000	
reduction of red meat and eggs	30	18.8	62.500	0.000	
eating white meat such as fish and birds	34	21.2	52.900	0.000	
Do not know	1	0.6	156.025	0.000	
Methods of cooking food					
Food cooked in the oven	19	11.9			
grilled food	13	8.1			
followed a healthy way to reduce food-fried or roasted	117	73.1	198.500	0.000	
Do not know	11	6.9			

<sup>\*</sup> This answer not mutual.

**Table (9):** Shows that 51.9% of the studied sample had taken twice shower per week . 90% of them had taken partial bath. According to washing the teeth 39.4% of them did not wash their teeth. The present study reveals that 55% of studied sample had three meals per day.75% had eaten fresh fruits and vegetables. 73.1% of them followed a healthy way to reduce food fried or roasted.

**Table(10):** Distribution of the studied sample according to their daily living activities (exercise, follow up and sleep) (n=160).

	NI O/	Chi-s	quare		
Items	N	%	$\mathbf{X}^2$	P-value	
Kind of sport exercise	•		-	1	
Walk	99	61.9	9.025	0.003	
Nothing	61	38.1	9.023	0.003	
The rate of doing the sport					
Daily	40	25.0			
Day after day	34	21.2			
Twice a week	18	11.3	54.063	0.000	
per week	7	4.4			
Nothing	61	38.1			
Time spend in practicing s	ports (99)				
Less than 15 minutes	17	17.2			
15 - 30 minutes	80	80.8	103.818	0.000	
More than 45 minutes	2	2.0			
Treatment					
Regular	152	95.0	273.950	0.000	
Irregular	8	5,0	273.930	0.000	
Follow –up					
Regular	158	98.8	152.100	0.000	
Irregular	2	1.2	132.100	0.000	
The duration of sleep					
From two to four hours	5	3.1			
From four to six hours	87	54.4	69.088	0.000	
More than six hours	68	42.5			

**Table (10)** Shows that 61.9% of the studied sample had walked as kind of sport. 80.8% of them had walked from 15-30 minutes. 95% of studied sample were regular in taking the treatment and 98.8% of them had regular in medical follow- up. 54.4% of them were sleeping from four to six hours.

**Table (11):** Distribution of studied sample according to their social and spiritual activities after mastectomy (n=160).

Items	Y	es
items	N	%
The mastectomy affect planning to have children.	35	21.9
Affects the provision of children needs.	153	95.6
Affects the home activities.	156	97.5
Leads to disturbance on marriage life.	103	64.4
Leads to rejection from the husband	98	61.3
Leads to divorce	23	14.4
Affects the financial burden.	158	98.8
Leads to social isolation.	142	88.8
Affects the religious activities.	95	59.4
Leads to no hope of cure.	96	60.0
Gives feeling of uncomfortable.	108	67.5

**Table (11)** Shows that 95.6% of studied sample could not conduct to usual daily activities for their children. Also 97.5% of them could not conduct to usual daily activities for homes. 64.4% of the studied sample had disturbed in the married life. 61.3% of them had a rejection of the husband. The present study shows that 98.8% of the studied sample had a financial burden. Also 88.8% of them felled with social isolation. 59.4% of women had affected in religious activities.(60%) of them had no hope of cure. Also 67.5% felled uncomfortable.

**Table(12):**Distribution of studied sample according to their attitude toward their body image after mastectomy (n=160).

	Strongly agree		Agree		Disagree		Chi-square	
Items	N	%	N	%	N	%	$\mathbf{X}^2$	P- value
Lost symbol of femininity and motherhood.	142	88.7	15	9.4	3	1.9	222.463	0.000
Surgical treatment and radiation altering the basic shape of the breast.	81	50.6	75	46.9	4	2.5	68.788	0.000
The side effects of chemotherapy such as hair loss, change the weight of the	79	49.4	77	48.1	4	2.5	68.488	0.000
Will not wear the same clothes I was wearing.	127	79.4	33	20.6	0	0.0	55.225	0.000
Do not feel femininity if I wore night clothes.	109	68.1	44	27.5	7	4.4	99.988	0.000
Must put some thing like the breast under the clothes.	80	50.0	57	35.6	23	14.4	30.838	0.000
Wear attractive Scarf to overcome the problem of hair loss.	79	49.4	48	30.0	33	20.6	20.638	0.000
Can not restore sexual relationship when I want.	86	53.7	27	16.9	47	29.4	33.763	0.000
Sexually affected by losing a breast.	94	58.7	19	11.9	47	29.4	53.863	0.000
Afraid my husband refused.	95	59.4	15	9.4	50	31.2	60.313	0.000
Feel ashamed when someone knows that I have the breast amputated	88	55.0	65	40.6	7	4.4	65.338	0.000

Table (12): Shows that 88.7% of studied sample strongly agree that they lost symbol of femininity and mother hood. 50.6% strongly agree that surgical treatment and radiation altering the basic shape of the breast. 79.4% of them strongly agree that they will not wear the same clothes that were wearing ever. 68.1% of studied sample strongly agree that they did not feel femininity if they wore night clothes. 53.7% of them strongly agree that they could not restore sexual relationship when they wanted. Also 58.7% of women strongly agree that sexually affected by losing abreast. 59.4% of them strongly agree that they were afraid of their husband refused . 55% of them strongly agree that they felled ashamed when some one knows that they had the breast amputated.

**Table(13):** Distribution of studied sample according to their self reported indicators of stress (n=160).

-	Of	Often		Sometimes		rely	Chi-square	
Items	N	%	N	%	N	%	$\mathbf{X}^2$	P- value
The neglect of eating.	79	49.4	77	48.1	4	2.5	68.488	0.000
Quick anger.	138	86.3	21	13.1	1	0.6	205.363	0.000
Find it difficult to decide.	72	45.0	86	53.7	2	1.3	75.950	0.000
Avoid people who disagreed with them.	54	33.7	99	61.9	7	4.4	79.363	0.000
Use of sedatives and hypnotics.	68	42.5	29	18.1	63	39.4	16.888	0.000
Go a long time crying on the past.	139	86.9	20	12.5	1	0.6	209.788	0.000
Find difficult to get time to relax.	102	63.8	57	35.6	1	0.6	96.013	0.000
A lack of vigor and energy.	132	82.5	26	16.3	2	1.2	179.450	0.000
Local pain such as (headache - the back pain).	121	75.6	38	23.8	1	0.6	141.613	0.000
Sweating heavy.	9	5.6	123	76.9	28	17.5	139.888	0.000

**Table (13):** Shows that 49.4% of women often neglected of eating. Also 86.3% of women often quick anger. while 61.9% of women sometimes avoided people who disagreed with them. 86.9% often went along time crying on the past. 63.8% of women often found difficult to get time to relax. Also 82.5% of women often suffered from vigor and energy. Also 75.6 complained of headache and back pain.

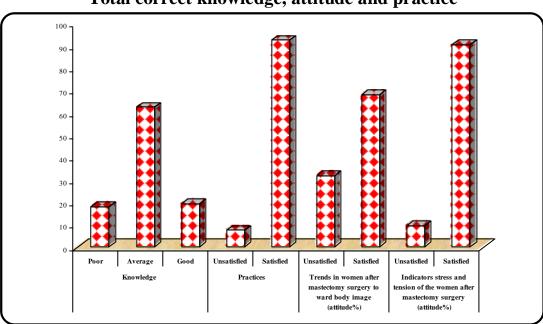
**Table (14):**Total attitude of women toward body image and stress& tension after mastectomy (n=160).

	Attitude		Chi-square				
	N	%	$X^2$	P-value			
Women's attitude after mastectomy surgery toward body image .							
Positive attitude	51	31.9	21.02	0.00			
Negative attitude	109	68.1	21.03	0.00			
<b>Indicators stress</b>	and tension of	f the women a	fter mastect	omy surgery,			
(there was no mil	d stress).						
Moderate stress	15	9.4	105 62	0.00			
Severe stress	145	90.6	105.63	0.00			

**Table (14):** Shows that 68.1% of women had negative attitude toward body image, while 90.6% of women had severe stress and tension after mastectomy surgery.

#### Figure (1): according to research question (No. 2):

Is women knowledge, attitude and practice are influenced by mastectomy?



Total correct knowledge, attitude and practice

This figure illustrates that 62.5% of women had average knowledge. 92.5% of women had un satisfactory practice of breast self examination. While 68.1% of women had negative attitude toward body image. Also 90.6% of women had sever stress toward stress and tension after mastectomy surgery.

### Part IV: Statistical relation:

**Table(15):** Relation between the women attitude toward body image, breast self examination and level of education (n=160).

		Primary		Secondary	higher	ANOVA		
Items		illiterate	education	education	education	f	P- value	
Attitude of	Mean	13.07	14.72	18.46	20.21	10.10.1	0.000	
women toward body image	SD	4.76	4.88	3.34	2.12	18.484	0.000	
Breast self	Mean	16.91	17.11	18.83	20.00	6.085	0.001	
examination	SD	3.72	3.40	2.64	0.00	0.083	0.001	

**Table(15)** Shows that there was highly statistical significant relation between high level of education and women attitude toward body image and breast self examination.

**Table(16):** Relation between women attitude toward body image, breast self examination and women age (n=160).

						ANOVA	
Items		25-	35-	45-	>55	f	P- value
Attitude of women	Mean	2.000	1-849	1.727	1.300	17.217	0.000
toward body image	SD	0.000	0.361	0.449	0.464		0.000
Breast self	Mean	13.667	13.434	12.445	11.250	17.735	0.000
examination	SD	1.435	1.394	1.698	1.481	17.733	0.000

**Table (16):** Shows that there was highly statistical significant relation between women age and attitude toward body image and breast self examination.

**Table(17):** Relation between women attitude toward body image, breast self examination and marital status (n=160).

Items				ANO	VA	
		married	Single	Widow	F	P- value
Attitude of women	Mean	18.60	11.75	10.49	104.27	0.00
toward body image	SD	3.03	3.54	3.60	104.27	
Draget calf avamination	Mean	18.48	17.75	16.05	9.07	0.00
Breast self examination	SD	2.85	3.48	3.71	8.07	

**Table(17):** Shows that there was highly statistical significant relation between women marital status and attitude toward body image and breast self examination.

**Table (18):** Relation between residence and women knowledge, attitude, and breast self examination (n=160).

		Residence							
<b>T</b> .	Urban			Rural			T-test		
Items	Mean	±	SD	Mean	±	SD	t	P- value	
Women Knowledge about breast cancer and mastectomy	12.152	±	2.797	10.765	±	1.559	3.885	0.000	
Attitude of women toward body image	16.861	±	4.657	14.901	±	4.971	2.572	0.011	
Breast self examination	18.152	±	3.203	17.506	±	3.347	1.246	0.215	

**Table(18):** Shows that there was highly statistical significant relation between women residence and women knowledge about breast cancer and mastectomy and attitude toward body image. This study reveals that there was no statistical significant between level of residence breast self examination for the women on the other breast.

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According to research question (No:3) is there a correlation between women health problems after mastectomy and their quality of life?

**Table (19):** Correlation between quality of life and women health problem after mastectomy (n=160).

Item	Health problem after mastectomy surgery			
	r	P-value		
Quality of life ( daily living activities).	-0.569	<0.001*		

**Table (19):** Shows that there was a highly statistical significant negative correlation between quality of life (daily living activities) and health problem after mastectomy.