

## Correlation between Self-Compassion and Body-Image among Women with Mastectomy

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**Background:** Mastectomy women always struggle to accept their body after the surgery and become isolated, criticize herself, and unable to use self-compassion as a mean of coping with such adversity. **Aim of the study:** This study aimed to examine the correlation between self-compassion and body-image among women with mastectomy. **Research design:** A descriptive correlational design was utilized to achieve the aim of the study. **Setting:** The study was conducted at general surgery outpatient's clinics at Benha University Hospital which is affiliated to Ministry of High Education, Benha city, Qalubia Governorate. **Subject:** A purposive sample of (60) women with mastectomy was utilized in this study. **Tools:** Three tools were used for data collection: **Tool (1):** - A- structured interviewing questionnaire sheet included socio demographic as well as clinical characteristics of the studied women. **Tool (2):-** Self-Compassion Scale (SCS) & **Tool (3):-** Body-Image Scale. **Results:** The result of the present study revealed that, the majority (86.7%) of the studied women had low level of self-compassion and the majority (90%) of the studied women had poor level of body-image. **Conclusion:** There was a high statistically significant positive correlation between mean score of total self-compassion and mean score of total body-image among the studied women with mastectomy. **Recommendations:** Psychological intervention should be integrated as a part of routine nursing care to improve their self-compassion and body-image for all women with mastectomy.

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**Key words:** Mastectomy, body-image, self-compassion.

### Introduction:

Mastectomy is the mainstay of breast cancer treatment which often accompanied by other adjuvant therapy, including hormonal therapy, chemotherapy, and radiation therapy (Wondimagegnehu *et al.*, (2024)). Mastectomy decision remains a big challenge for many breast cancer women as breasts are associated with symbols such as esthetic appearance, femininity, attractiveness, sexuality, and motherhood for them. The removal of the breast via mastectomy can be perceived by women as a loss of these symbols and can lead to many physical and psychosocial problems because they lose confidence in their own bodies. This negatively

affects the course of the disease and response to treatment (Ilgin *et al.*, 2024).

Mastectomy resulting in a permanent change in the women's appearance and in this regard, besides the physical complications arising from total or partial mutilation of the breast, mastectomy negatively affect body-image, as the loss of an organ full of symbols and identity brings to the women dissatisfaction with appearance, perceived loss of femininity and body integrity, reluctance to look at one's self naked, as well as feeling less sexually attractive. Negative body-image affects the social and physical efficiency of such women

and is associated with some symptoms of anxiety and depression, low self-esteem, poor physical health, feelings of helplessness, lower their quality of life, and decrease social isolation (*Ibrahim, 2023*). Negative thoughts and emotions associated with mastectomy, lowers women's psychological flexibility and ability to be kind and accepting oneself in the midst of suffering and this result in self-criticism, feeling isolated and alone and ends in a low level of self-compassion, as a means of coping (*Simion et al., 2024*).

Previous studies have shown that self-compassion is an effective variable to reduce the body-image disturbances among women with mastectomy as self-compassion allows women to neither judge nor avoid the changes in appearance and function, regarding these changes as part of the suffering experienced by human beings, and accept their imperfect appearance with mindfulness (*Neff & Germer, 2024*). Mastectomy lowers women self-compassion due to negative thoughts and emotions associated with the disturbed body-image that increase self-criticism and rejection. As a positive psychological resource, self-compassion (SC) may represent an important approach in improving body-image disturbances. On the other hand, self-compassion can positively predict body-image as women who accept their imperfect body-image with high levels of self-compassion reduce their body-image disturbance and improve their quality of life (*Zhu et al., 2023*).

Psychiatric and mental health nurses (PMHN) have a fundamental role in providing psychological support for such women with mastectomy to help women to counteract symptoms that occur after mastectomy such as anxiety, shame and feelings of uselessness. Also, (PMHN) nurse has a role in improving self-compassion regarding body awareness, will allow women with mastectomy to react in kind, warm-hearted ways toward their body that nurture their self-care. Furthermore, help

women with mastectomy to cope with such adversity through giving up from negative thoughts toward self and body image, increase connection to the present moment through mindfulness, accepting their new body after mastectomy.

### **Significance of the study:**

Mastectomy remains the mainstay and crucial part of the treatment plan of breast cancers treatment and early mastectomy plays an important role in survival. It is estimated that, the worldwide mastectomy surgeries will increase from 9,065,000 in 2024 to reach to 13,821,000 in 2040 (*American Cancer Society, (ACS), 2024*). Furthermore, this increased incidence of mastectomy indicates that it is the most effective treatment of breast cancer which reflects a decrease in breast cancer mortality rate. **In Egypt**, an approximately 30,000 new women with breast cancer estimated annually (*World Health Organization (WHO), 2024*). Also, the statistical department at Benha University Hospital reported about 471 cases with mastectomy by the end of 2023.

Several studies had reported lower level of self-compassion and body-image among women with mastectomy as a study conducted at general surgery outpatient's clinics at Benha University Hospital which composed of total of 100 women with mastectomy, reported that, (49%) of the studied women had moderate level of self-compassion (*Hakam et al., 2023* :& *Shams El-din et al., 2021*). In addition, another study conducted at medical oncology department at Al Maadi Military Hospita, Egypt, revealed that there was a high significant body-image disturbance among women with mastectomy (*Talaat et al., 2023*). Therefore, this study aimed to assess the correlation between self-compassion and body-image among women with mastectomy

### **Aim of the study:**

The aim of this study was to examine the correlation between self-compassion and body-image among women with mastectomy.

### **Research questions:**

1. What are the levels of self-compassion and body-image among women with mastectomy?
2. Is there a correlation between self-compassion and body-image among women with mastectomy?

### **Research design:-**

A descriptive correlational design was utilized to achieve the aim of the study.

### **Research setting:-**

The study was conducted at general surgery outpatient's clinics at Benha University Hospital which is affiliated to Ministry of High Education, Benha city, Qalubia Governorate. These clinics provide services not only for general surgeries, but also, for women with mastectomy who attend for follow up and it working from (9 Am to 12 Pm) 6 days/week except Friday and holidays and specified 2 days (Saturday and Thursday) for only women with mastectomy.

### **Research subject:-**

A purposive sample of (60) women with mastectomy who were admitted at the above mentioned setting for follow-up were taken according to the following inclusion and exclusion criteria.

### **Inclusion criteria:**

- Women with mastectomy.
- Age from 18-65 years.
- Willing to participate in the study.

### **Exclusion criteria:**

- Women with history of psychotic symptoms.
- Women with history of neurological disorder.
- Women have visual or hearing impairment.

### **Tools of data collection:-**

In order to fulfill the aim of the study, the data was collected by using the following tools.

### **Tool (1):- A Structured Interviewing Questionnaire Sheet:**

The questionnaire was developed by the researcher based on scientific review of literature and consists of two parts:

**Part (1): - Socio-demographic data:** To elicit data about the studied women's characteristics such as (age, marital status, educational level, occupation, residence, monthly income, and number of family members).

**Part (2): - Clinical data of the studied women:** Which includes (duration of breast cancer, disease stage, type of mastectomy performed, type of treatment after mastectomy, side effects occurred after mastectomy, previous admission to hospital, suffering from any other type of cancer, previous surgical tumor removal, previous surgical removal of any other tumor, and family history of cancer).

### **Tool (2):- Self-Compassion Scale (SCS):**

The scale was originally developed by *Neff, (2003)* and adapted by the researcher. This scale was used to assess the characteristics of self-compassion and measure how often people respond to feelings of inadequacy or suffering with. It consists of 26 items rated on a 5-point Likert scale ranging from (1 = Almost never to 5 = always). The scale divided into 3 positive and 3 negative subscales; *The 3 positive subscales* includes self-kindness subscale (5 items), common humanity subscale (4 items), and mindfulness subscale (4 items), while *the 3 negative subscales* include self-judgment subscale (5 items), isolation subscale (4 items), and over-identification subscale (4 items). The higher score indicating high self-compassion.

### **Scoring system of self-compassion scale was categorized as follows:**

- Low self-compassion (26 - 39 grades).
- Moderate self-compassion (39-58 grades).
- High self-compassion (58- 78 grades).

### **Tool (3):- Body-Image Scale:**

This scale was developed by *Koleck et al., (2002)* and adapted by the researcher. This scale was used to assess body-image among women with mastectomy. The scale was consisted of 12 items and it contains positive and negative items. *Negative items* numbered from (1to 9) and responses for these negative items are strongly agree (1), agree (2), disagree (3), strongly

disagree (4). While *positive items* numbered (10, 11, 12) and responses for these positive items are strongly agree (4), agree (3), disagree (2), strongly disagree (1). The total score was calculated by averaging all items after reversing the score of the negative items.

**Scoring system of body-image scale was categorized as follows:**

- Poor body-image (12-24 grades).
- Average body-image (25-36 grades).
- Good body-image (37-48 grades).

**Methods**

**Field work:-**

The present study was conducted in four phases.

**1- Preparatory phase:-**

This phase included reviewing of relevant literature and different studies related to the topic of research, using textbooks, articles, magazines, periodicals, and internet search was done to get a clear picture of all aspects related to the research topic to design the program.

**Content validity of the tools:**

- Arabic translation was done by researcher for self-compassion scale and body-image scale and tested for their translation.
- Content validity of tools was done by jury of 5 experts in Psychiatric & Mental Health Nursing.
- Modifications were done in Self-Compassion scale that was used in the research study and modified from 5 likert scale to 3 likert scale. The scale used a 3-point scale that ranges from (never (1), sometimes (2), always (3)) for the 3 positive subscales (self-Kindness, common humanity, and mindfulness). The total score was calculated by averaging all items after reversing the score of the negative subscale items (self-judgment, isolation, and over-identification) to be ranges from (never (3), sometimes (2), always (1)). The total potential score ranges from 26 to 78, with a higher score indicating a higher self-compassion. These modifications were done

with the objective of its accuracy and consistency.

- The researcher also, made rephrasing of some sentences in arabic translation in both self-compassion scale and body-image scale to become easier and more understandable for all studied women with mastectomy.

**Reliability of the tools:**

Reliability of tools: The internal consistency of the tools was checked by Alpha Cronbach reliability analysis.

Items	No. of items	Alpha Cronbach	f	p-value	Indicator
Self-compassion Scale	26	0.916	17.97	0.000**	Strong reliability
Body image Scale	12	0.901	23.27	0.000**	Strong reliability

**Ethical considerations:**

- An approval from ethical committee from faculty of nursing Benha University was obtained to conduct the study.
- The researcher assured voluntary participation for every selected woman involved on the sample and the purpose of the study was explained.
- A written consent was obtained from all studied women after informing about the purpose of the study and they were informed about their right to withdraw from the study at any time without giving any reason.
- Data confidentiality and patient's privacy were secured throughout of the study.

**A pilot study:**

- Before starting data collection, a pilot study was conducted to assess the clarity and applicability of the study tools and identify the time needed to fill each tool. It was carried out on 10% of the study subjects, (6 women with mastectomy) who were excluded from the main study sample. After collecting pilot study, it was found that each woman with mastectomy took 35-45 minutes to fulfill tools of the study.

- Not significant

P > 0.05

## 2- Implementation phase:

The implementation phase of the study has done through data collection (Assessment phase).

- Data collection of this study was carried out at general surgery outpatient clinics at Benha University hospital, Qalubia Governorate.. Orientation of the studied women was done about the purpose of the study.
- Each subject was interviewed individually to collect the necessary data in privacy using all study tools, (Socio-demographic and clinical data, self-compassion scale and body-image scale).
- Researcher began data collection by introducing herself to the studied subjects and subjects were informed about their rights to withdraw from the study without any reason.
- The data was collected 2 days/week (Saturday & Thursday) at 9 A.M. to 12 P.M. through while an average of 4-5 women was interviewed per day. Each interview lasted for 30-45 minutes depending on the response of interview. The process of data collection took a period from 1 August to 15 September 2022.

### Statistical analysis:

The collected data were organized, computerized, tabulated and analyzed by using the Statistical Package for Social Science (SPSS) version 20. Data analysis was accomplished by the use of number, percentage distribution, mean, and standard deviation. In addition to, Paired t-test was used to compare means within group, Chi-square test ( $\chi^2$ ) for relation tests and linear correlation coefficient ( $r$ ) and matrix correlation to detect the relation between variables (p- value).

### Significance levels were considered as follows:

- Highly statistically significant P < 0.001\*\*
- Statistically significant P < 0.05\*

## Results:

**Table (1):** Shows that, more than half (58.3%) of the studied women with mastectomy are aged from 35 - < 45 years, and the Mean  $\pm$ SD of age is  $38.14 \pm 6.17$  years. Regarding marital status, two thirds (66.7%) of them are married.

**Figure (1):** Illustrates that, the majority of the studied women with mastectomy had low level of self-compassion, while the minority had high level of self-compassion.

**Figure (2):** Reflects that the majority of the studied women with mastectomy had low level of body-image, while the minority had high level of body-image.

**Table (2):** Reveals that, there is a statistically significant relation between total level of women's self-compassion and their age and marital status at (P-value= < 0.05)\*.

**Table (3):** Demonstrates that, there is a statistically significant relation between total level of women's self-compassion with their duration of breast cancer, disease stage and type of mastectomy performed at (P-value= < 0.05)\*.

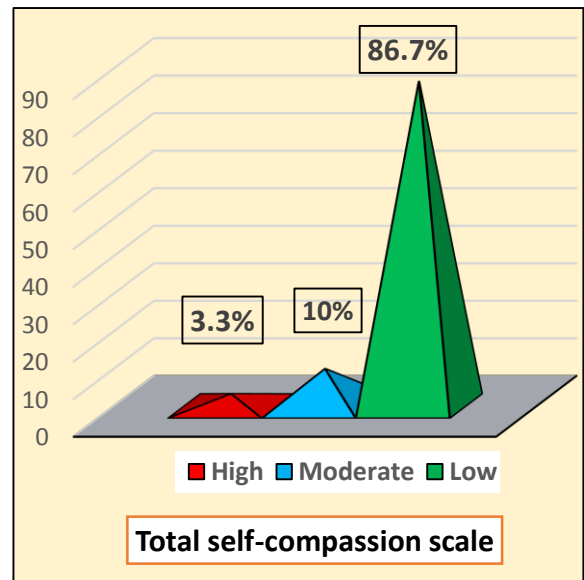
**Table (4)** Illustrates that, there is a statistically significant relation between total level of women's body-image and (age and marital status) at (P-value= < 0.05)\*.

**Table (5)** Displays that, there is a statistically significant relation between total level of women's body-image with their duration of breast cancer, disease stage and type of mastectomy at (P-value= < 0.05)\*.

**Table (3):** Represents that, there is a high statistically significant positive correlation between mean score of total self-compassion and mean score of total body-image among the studied women with mastectomy at p- value < 0.000.\*\*

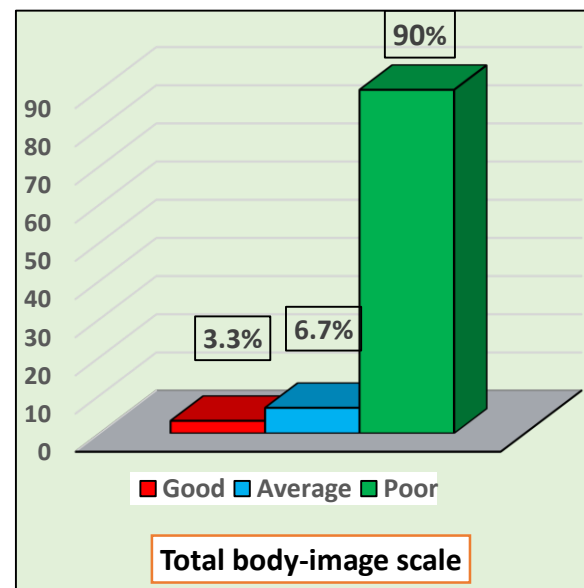
**Table (1):** Percentage distribution of the studied women with mastectomy according to their socio-demographic data (n=60).

Socio-demographic data	Studied women (n = 60)	
	No.	%
<b>Age (years)</b>		
18 - < 25 years	3	5.0
25 - < 35 years	12	20.0
35 - < 45 years	<b>35</b>	<b>58.3</b>
45 - < 55 years	7	11.7
55- ≤ 65 years	3	5.0
<b>Mean SD</b>	<b>38.14 ± 6.17</b>	
<b>Marital status</b>		
Single	5	8.3
Married	<b>40</b>	<b>66.7</b>
Widowed	13	21.7
Divorced	2	3.3
<b>Education level</b>		
Read and writes	1	1.7
Primary education	2	3.3
Preparatory education	15	25.0
Secondary education (diplome)	<b>21</b>	<b>35.0</b>
University education	<b>21</b>	<b>35.0</b>
<b>Occupation</b>		
Working	23	38.3
Not working	<b>37</b>	<b>61.7</b>
<b>If answer is working, what is the type of work? (n=23)</b>		
Employee at government sector	5	21.7
Employee at private sector	<b>12</b>	<b>52.2</b>
Free business	6	26.1
<b>Residence</b>		
Rural	<b>37</b>	<b>61.7</b>
Urban	23	38.3
<b>Monthly income</b>		
Enough	7	11.7
Enough and can be saved	18	30.0
Not enough	<b>35</b>	<b>58.3</b>
<b>Number of family members</b>		
2-4 members	17	28.3
5-7 members	<b>33</b>	<b>55.0</b>
More than 7 members	10	16.7



$X^2 = 81.91$        $P\text{-value} < 0.000$

**Figure (1):** Comparison between total level of self-compassion among the studied women with mastectomy (n=60).



$X^2 = 91.61$        $P\text{-value} < 0.000^{**}$

**Figure (2):** Comparison between total level of body-image among the studied women with mastectomy (n=60).

**Table (2):** Relationship between socio-demographic data of the studied women with mastectomy and the total level of self-compassion (n=60).

Socio-demographic data of the studied women		Total level of self-compassion						X2	P-Value
		High (n=2)		Moderate (n=6)		Low (n=52)			
		No.	%	No.	%	No.	%		
<b>Age (years)</b>	18 - < 25 years	1	50.0	0	0.0	2	3.9	<b>13.05</b>	<b>&lt;0.05*</b>
	25 - < 35 years	1	50.0	1	16.7	10	19.2		
	35 - < 45 years	0	0.0	3	50.0	32	61.5		
	45 - < 55 years	0	0.0	1	16.7	6	11.5		
	55- ≤ 65 years	0	0.0	1	16.7	2	3.9		
<b>Marital status</b>	Single	0	0.0	0	0.0	5	9.6	<b>8.896</b>	<b>&lt;0.05*</b>
	Married	2	100.0	5	83.3	33	63.5		
	Widowed	0	0.0	1	16.7	12	23.1		
	Divorced	0	0.0	0	0.0	2	3.8		
<b>Education level</b>	Read and writes	0	0.0	0	0.0	1	1.9	3.414	>0.05
	Primary education	0	0.0	0	0.0	2	3.9		
	Preparatory education	0	0.0	3	50.0	12	23.1		
	Secondary education (diplome)	1	50.0	2	33.3	18	34.6		
	University education	1	50.0	1	16.7	19	36.5		
<b>Occupation</b>	Working	0	0.0	2	33.3	21	40.4	1.399	>0.05
	Not working	2	100.0	4	66.7	31	59.6		
<b>Residence</b>	Rural	1	50.0	5	83.3	31	59.6	1.399	>0.05
	Urban	1	50.0	1	16.7	21	40.4		
<b>Monthly income</b>	Enough	1	50.0	1	16.7	5	9.6	6.330	>0.05
	Enough and can be saved	0	0.0	0	0.0	18	34.6		
	Not enough	1	50.0	5	83.3	29	55.8		
<b>Number of family members</b>	2-4 members	1	50.0	3	50.0	13	25.0	3.110	>0.05
	5-7 members	1	50.0	3	50.0	29	55.8		
	More than 7 members	0	0.0	0	0.0	10	19.2		

**Table (3):** Relationship between clinical data of the studied women with mastectomy and the total level of self-compassion (n=60).

Clinical data of the studied women		Total level of self-compassion						X2	P-Value
		High (n=2)		Moderate (n=6)		Low (n=52)			
		No.	%	No.	%	No.	%		
<b>Duration of breast cancer</b>	< 6 months	2	100.0	0	0.0	0	0.0	<b>7.107</b>	<b>&lt;0.05*</b>
	6 months - <1 year	0	0.0	0	0.0	11	21.2		
	1 year - < 2 years	0	0.0	2	33.3	11	21.2		
	2 years- < 3years	0	0.0	2	33.3	13	25.0		
	3 years or more	0	0.0	2	33.3	17	32.6		
	<b>Disease stage</b>	First stage	1	50.0	4	66.7	1		
Second stage	1	50.0	1	16.7	23	44.3			
Third stage	0	0.0	1	16.7	10	19.2			
Fourth stage	0	0.0	0	0.0	18	34.6			
<b>Type of mastectomy performed</b>	Lumpectomy	2	100.0	0	0.0	9	17.3	<b>10.64</b>	<b>&lt;0.05*</b>
	Total mastectomy of one breast	0	0.0	2	33.3	16	30.8		
	Total mastectomy of two breasts	0	0.0	2	33.3	10	19.2		
	Modified radical mastectomy	0	0.0	2	33.3	17	32.7		
<b>Previous admission to hospital</b>	Yes	1	50.0	6	100.0	41	78.8	2.668	>0.05
	No	1	50.0	0	0.0	11	21.2		
<b>Suffering from any other type of cancer</b>	Yes	0	0.0	1	16.7	10	19.2	0.488	>0.05
	No	2	100.0	5	83.3	42	80.8		
<b>Previous surgical tumor removal</b>	Yes	0	0.0	1	16.7	6	11.5	0.411	>0.05
	No	2	100.0	5	83.3	46	88.5		
<b>Family history of cancer</b>	Yes	2	100.0	4	66.7	10	19.2	11.22	>0.05
	No	0	0.0	2	33.3	42	80.8		

**Table (4):** Relationship between socio-demographic data of the studied women with mastectomy and the total level of body-image (n=60).

Socio-demographic data of the studied women		Total level of body image						X2	P-Value
		Good (n=2)		Average (n=4)		Poor (n=54)			
		No.	%	No.	%	No.	%		
<b>Age (year)</b>	18 - < 25 years	1	50.0	0	0.0	2	3.7	<b>11.96</b>	<b>&lt;0.05*</b>
	25 - < 35 years	1	50.0	1	25.0	10	18.5		
	35 - < 45 years	0	0.0	2	50.0	33	61.1		
	45 - < 55 years	0	0.0	1	25.0	6	11.1		
	55- ≤ 65 years	0	0.0	0	0.0	3	5.6		
<b>Marital status</b>	Single	1	50.0	0	0.0	4	7.4	<b>5.002</b>	<b>&lt;0.05*</b>
	Married	1	50.0	3	75.0	36	66.7		
	Widowed	0	0.0	1	25.0	12	22.2		
	Divorced	0	0.0	0	0.0	2	3.7		
<b>Education level</b>	Read and writes	0	0.0	0	0.0	1	1.9	1.524	>0.05
	Primary education	0	0.0	0	0.0	2	3.7		
	Preparatory education	0	0.0	1	25.0	14	25.9		
	Secondary education (diplome)	1	50.0	2	50.0	18	33.3		
	University education	1	50.0	1	25.0	19	35.2		
<b>Occupation</b>	Working	0	0.0	1	25.0	22	40.7	1.676	>0.05
	Not working	2	100.0	3	75.0	32	59.3		
<b>Residence</b>	Rural	1	50.0	3	75.0	33	61.1	0.423	>0.05
	Urban	1	50.0	1	25.0	21	38.9		
<b>Monthly income</b>	Enough	1	50.0	1	25.0	5	9.3	5.619	>0.05
	Enough and can be saved	0	0.0	0	0.0	18	33.3		
	Not enough	1	50.0	3	75.0	31	57.4		
<b>Number of family members</b>	2-4 members	1	50.0	2	50.0	14	25.9	2.246	>0.05
	5-7 members	1	50.0	2	50.0	30	55.6		
	More than 7 members	0	0.0	0	0.0	10	18.5		

**Table (5):** Relationship between clinical data of the studied women with mastectomy and the total level of body-image (n=60).

Clinical data of the studied women		Total level of body-image						X2	P-Value
		Good (n=2)		Average (n=4)		Poor (n=54)			
		No.	%	No.	%	No.	%		
<b>Duration of breast cancer</b>	< 6 months	2	100.0	0	0.0	0	0.0	<b>7.109</b>	<b>&lt;0.05*</b>
	6 months - <1 year	0	0.0	0	0.0	11	20.4		
	1 year - < 2 years	0	0.0	1	25.0	12	22.2		
	2 years- < 3years	0	0.0	2	50.0	13	24.1		
	3 years or more	0	0.0	1	25.0	18	33.3		
<b>Disease stage</b>	First stage	1	50.0	3	75.0	2	3.7	<b>9.283</b>	<b>&lt;0.05*</b>
	Second stage	1	50.0	1	25.0	23	42.6		
	Third stage	0	0.0	0	0.0	11	20.4		
	Fourth stage	0	0.0	0	0.0	18	33.3		
<b>Type of mastectomy performed</b>	Lumpectomy	2	100.0	2	50.0	7	13.0	<b>10.27</b>	<b>&lt;0.05*</b>
	Total mastectomy of one breast	0	0.0	2	50.0	16	29.6		
	Total mastectomy of two breasts	0	0.0	0	0.0	12	22.2		
	Modified radical mastectomy	0	0.0	0	0.0	19			
<b>Previous admission to hospital</b>	Yes	1	50.0	4	100.0	43	79.6	2.130	>0.05
	No	1	50.0	0	0.0	11	20.4		
<b>Suffering from any other type of cancer</b>	Yes	0	0.0	1	25.0	10	18.5	0.569	>0.05
	No	2	100.0	3	75.0	44	81.5		
<b>Previous surgical tumor removal</b>	Yes	0	0.0	1	25.0	6	11.1	0.970	>0.05
	No	2	100.0	3	75.0	48	88.9		
<b>Family history of cancer</b>	Yes	2	100.0	3	75.0	43	79.6	11.22	>0.05
	No	0	0.0	1	25.0	11	20.4		



**Table (5):** Correlation between mean score of the total self-compassion and mean score of the total body-image among the studied women with mastectomy (n=60).

Variables		Total body image
Total self-compassion	r p-value	0.800 0.000**

r= correlation coefficient test. P= p-value  
\*\*highly significant at  $p < 0.000$

### Discussion:

Data emerging from the present study showed that, regarding to socio-demographic characteristics of the studied women, more than half of the studied women with mastectomy were aged from 35 - < 45 years, and the Mean  $\pm$ SD of age was  $38.14 \pm 6.17$  years. From researcher's point of view, this could be attributed to the most significant hormonal changes that often happen around the age of 40 years and these hormone fluctuations as estrogen exerts stimulatory effects while androgens exert inhibitory effects regulating cell proliferation in breast cells and when this balance is disrupted progression of cancer may occur. This occur as the body transitions toward menopause which indeed a transitional phase for most women as they go through physiological and psychological changes during this period.

These results were consistent with the study done by *Patiyal et al., (2023)* which entitled (**Lived experiences of post-mastectomy women**) and reported that, more than half of his studied women their age were between 31-45 years. On other hand, these results was contradicted with the study conducted at the General Surgery department of Kafrelsheikh University Hospital by *Eldamshety et al., (2023)* which entitled (**Expanding scope about factors influencing seroma formation after breast cancer surgery**) and revealed that, more than two thirds of his studied women their age was more than 45 years. In addition, these current results were inconsistent with a study done by *Tarawneh et al., (2024)* which entitled (**Body image and its**

**relationship to marital adjustment for a sample of married women after mastectomy**) and explained that, only one fifth of his mastectomy women their age were between 36-45 years.

Concerning the marital status, the result of the present study revealed that, two thirds of the studied women were married. From the researcher's point of view, this might be due to the use of oral contraceptives as the use of hormonal contraception can increase the risk of breast cancer so that, it would cause increase in exposure to the hormone estrogen in the body. In addition, more than half of the studied women had from 5-7 family members and this reflect the need for using oral contraceptives.

Furthermore, the results of this current study were in the same line with the study done by *Hassan et al., (2023)* which entitled (**Brief overview about body image and feeling of loneliness among post mastectomy women**) and reported that, about two thirds of his studied women were married. In contrast, these present results were contradicted with the study of *Álvarez-Pardoet al., (2023)* which entitled (**Factors associated with body image and self-esteem in mastectomized breast cancer survivors**) and stated that, the majority of his studied mastectomatized women were married.

Concerning the total level of self-compassion among the studied women with mastectomy, these results illustrated that, the majority of the studied women had low level of self-compassion. The researcher attributed this result due to that, mastectomy women can't accept mastectomy and other short-comings after it, which made them couldn't manage their thoughts positively so that, their attitude is absent from optimism, gratitude, and appreciation for everything that happens to them and in turn increase self-judgment and criticism and lowering self-compassion. Also, it might be due to lack of social support from family and others that women with mastectomy need which made hem realizing that they were alone in living with cancer.

This current result was contradicted with the study of *Hakam et al., (2023)* that entitled (**The relationship between religiosity and self-Compassion in breast cancer patients post mastectomy surgery**) and stated that, the majority of his studied women had high level of self-compassion. On the other hand, this result was contradicted with a study done by *Pourfereydoun & Bozorgi., (2023)* which entitled (**Effectiveness of cognitive rehabilitation therapy on psychological distress and self-compassion in mastectomized women with depression**) and illustrated that, the majority of studied women with mastectomy had high level of self-compassion.

Regarding the total level of body-image among the studied women with mastectomy, this result clarified that, the majority of the studied women had poor level of body-image. From the researcher point of view, these results could be due to, cognitive fusion and believability of negative thoughts associated with body after mastectomy. In addition, feeling incomplete after undergoing mastectomy as breast is an important part of the female body which is a source of femininity, sexual attractiveness, and feelings of being worthy and confident. Furthermore, mastectomy and hair loss due to chemotherapy can break the woman's self-image of worthiness and provoke a feeling of no beauty and unattractiveness.

Moreover, these results of this study was in the same line with the study of *Bai et al., (2023)* that entitled (**Women's satisfaction and body image long-term after risk-reducing mastectomy – the partners' perspective**) and showed that, the majority of women after mastectomy had poor body-image. Also, this result parallel with *Afshar - Bakshloo et al., (2023)* who conduct a study entitled (**How breast cancer therapies impact body-image real- world data from a prospective cohort study collecting patient- reported outcomes**) and reflected that, the majority of women with mastectomy had poor body-image rather than any women with breast cancer treated by chemotherapy and radiotherapy.

As regard to the relationship between total level of self-compassion of the studied women with mastectomy and their socio-demographic data, these results revealed that, there was a statistically significant relation between total level of women's self-compassion and their age. The lower level of self-compassion was between age of 35 - < 45 years. The researcher attributed these results due to, younger women with mastectomy tend to readapt mentally worse to the crisis of having mastectomy at this young age, as it might distort all short and medium-term plans, and the sequelae can undermine their expectations about their future lifestyle, increase emotional pain, and self-criticism and decrease their resilience, self-kindness and resulting in lower self-compassion.

The result of this study was agreed with *Hakam et al., (2023)* who conduct a study entitled (**The relationship between religiosity and self-compassion in breast cancer patients post mastectomy surgery at dr Coebandi Jember hospital**) and revealed that, there was a statistically significant relation between age and self-compassion among his studied sample.

Furthermore, these results reflected that, there was a statistically significant relation between total level of women's self-compassion and their marital status. The lower level of self-compassion was between married women. The researcher attributed these results due to, the impact of mastectomy on their body as missing half of themselves as women which cause continuous self-criticism and blaming. Furthermore, other impact of cancer treatment such as sexual dysfunction such as vaginal dryness and decreased sexual desire which could lead to a strong sense of inferiority in women, as they believe they have lost their feminine charm. This opinion was supported by *Haris et al., (2023)* who conduct a study entitled (**Sexual dysfunction following breast cancer chemotherapy: A cross-sectional study in Yogyakarta, Indonesia**) and revealed that, the frequency of sexual activity reduced after surgery in the BC women, and some patients even reported a lack of sexual activity.

Concerning relationship between total level of self-compassion and clinical data of the studied women with mastectomy, these result illustrated that, there

was a statistically significant relation between total level of women's self-compassion with their duration of breast cancer, disease stage and type of mastectomy performed, the lower level of self-compassion was between women who had breast cancer from 3 years or more and were in the second stage of disease and had modified radical mastectomy. The researcher contributed these results due to, many factors that make women with mastectomy became hard on herself such as lack of support from others with long duration of suffering from breast cancer in which women may face difficulties in dealing with her affected body, fear of cancer recurrence, how others accept her and how she accept mastectomy that alter her relation with her husband and give her up from social interaction. All these factors make women isolated and became tough on self that directly decreases self-compassion.

Regarding, the relationship between total level of body-image of the studied women with mastectomy and their socio-demographic data, these results revealed that, there was a statistically significant relation between total level of women's body-image and age, the poor level of body-image was between age of 35 - < 45 years. From researcher's point of view this might be due to, that being at a younger age is a predictive factor of poorer body-image, and older age is a protective factor against problems with body-image and self-esteem and this was because there was less pressure to conform to youth beauty standards and a greater sense of security and self-comfort as one age.

This result was in the same line with *Álvarez-Pardo et al., (2023)* who conduct a study entitled **(Factors associated with body image and self-esteem in mastectomized breast cancer survivors)** and indicated that, women with mastectomy in the group  $\geq 50$  years old have higher satisfaction with their body-image (BI) than younger BCS (breast cancer survivors). In addition to *Thornton & Lewis-Smith, (2023)* who conduct a study entitled **(I listen to my body now: A qualitative exploration of positive body image in breast cancer survivors)** and revealed that, poor body-image were at young age while women after age of 50 had good level of body-image.

On the other hand, this result was congruent with *Thakur et al., (2022)* who conduct a study entitled **(Psychological distress and body image disturbances after modified radical mastectomy among breast cancer survivors: A cross-sectional study from a tertiary care center in North India)** and reported that, there was no relation between age and level of body-image.

Moreover, these present results reflected that, there was a statistically significant relation between total level of women's body-image and the marital status, the poor level of body-image was between married women. From researcher's point of view, this might be due to, that breast is considered the main sign of femininity and without it especially if married, body-image will be distorted in view of herself and her husband and feel ashamed. Also, mastectomy considered a threat to their attractiveness that easily cause irritability and unsatisfied sexual relationship and considered the most marital impacts. In addition to, spouses might have difficulty in seeing surgical wound and fear of hurting their wife's during sexual intimacy; therefore, raise problems in their sexual life.

Regarding relationship between total level of body-image and clinical data of the studied women with mastectomy these current result revealed that, there was a statistically significant relation between total level of women's body-image with their duration of breast cancer, disease stage and type of mastectomy performed. From researcher's point of view, the poor level of body-image was between women who had breast cancer from 3 years or more and were in the second stage of disease and had modified radical mastectomy. The researcher attributed these results due to, long term suffering from breast cancer and difficulty accepting and viewing wound site with no breast which decrease self-concept, and coping with their new body-image result in poorer level of body-image and escape from the public to decrease the psychological burden about their body-image and also, woman indicated a preference for clothing that covered her missing breasts.

This present result was consistent with *Thakur et al., (2022)* who conduct a study entitled

**(Psychological distress and body image disturbances after modified radical mastectomy among breast cancer survivors: A cross-sectional study from a tertiary care center in North India)** and revealed that, there was a statistically significant relation between total level of women's body-image and their duration of breast cancer, disease stage, and type of mastectomy performed. In addition, *Phosuwan & Lundberg, (2023)* in a study entitled **(Life satisfaction, body image and associated factors among women with breast cancer after mastectomy)** illustrated that, there was a statistically significant relation between body-image and women's duration of breast cancer, disease stage and type of mastectomy performed.

As regard to the correlation between mean score of the total self-compassion and mean score of the total body-image among the studied women with mastectomy, these results illustrated that, there was a highly statistically significant positive correlation between mean score of total self-compassion and mean score of total body-image among the studied women with mastectomy. The researcher attributed these results due to, the painful experience of mastectomy and it is changes on body-image could lower rates of adaptive coping; higher degrees of psychological distress such as depression and anxiety, and decrease women's quality of life.

The result of the present study was in the same line with *Shams El-din et al., (2021)* who conducted a study entitled **(Relation between self-compassion, perfectionism and body image satisfaction among women with mastectomy)** and revealed that, here was high positive correlation between self-compassion, adaptive perfectionism and body image. In addition to, *Sherman et al., (2017)* in a study entitled **(Body image and psychological distress in nipple-sparing mastectomy the roles of self-compassion and appearance investment)** reported that, increased body-image disturbance was moderated by self-compassion and investment in appearance. In contrast this result was contradicted with

*Ramezani et al., (2023)* in a study entitled **(Investigating the role of self-compassion and shame in predicting posttraumatic growth and body image concern in breast cancer patients)** and explained that, there was a negative and significant correlation between self-compassion and body image concern.

Finally, it can be said that implementing and these results were consistent with the research questions.

### **Conclusion:**

**Based on the results of the present study, the following conclusions were formulated:**

There was a high statistically significant positive correlation between mean score of total self-compassion and mean score of total body-image among the studied women with mastectomy.

### **Recommendations:**

**Based on the findings and conclusion of this present study, the following recommendations are suggested:**

- Psychological intervention should be integrated as a part of routine nursing care to improve their self-compassion and body-image for all women with mastectomy.
- Applying training programs and seminars for family member and husbands of women with mastectomy about the importance of psychological support especially after surgery.

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