Correlation between Body Image, Self-esteem and Self-efficacy among Women with Mastectomy

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Abstract

Background: Mastectomy has many emotional, physical and psychological effects among the affected women which negatively affects not only their body image but also, their self-esteem and self-efficacy. **Aim of the study:** This study aimed to assess the correlation between body image, self-esteem and self-efficacy among women with mastectomy. **Research question:** What is the correlation between body image, self-esteem and self-efficacy among women with mastectomy? **Design:** A descriptive correlational research design was utilized in this study. **Setting:** This study was conducted at women surgery department at Benha university hospital, Benha City, Qalyubia governorate. **Sample:** A purposive sample of 100 women with mastectomy was taken from the above mentioned setting. **Tools:** Tool (1): A structured Interviewing Questionnaire Sheet, Tool (11): Body image scale, Tool (111): Rosenberg Self –esteem scale and Tool (V): Self-efficacy scale. **Results:** Findings reflected that nearly two thirds of studied women with mastectomy had poor body image. In addition, more than half of them had low levels of self-esteem and self-efficacy. **Conclusion:** There was a highly statistically significant positive correlation between mean scores of total levels of body image, self-esteem and self-efficacy among the studied women. **Recommendation:** Psycho-educational program needs to become an integral entity of comprehensive care for all women with mastectomy to enhance their body image, self-esteem and self –efficacy.

Keywords: Body image, Self-esteem, Self-efficacy, Mastectomy.

Introduction

Breast cancer is the most common malignant tumor among women that has developed from cells in the breast. The primary risk factors for breast cancer are being females and other potential risk factors include genetics, higher levels of certain hormones, certain dietary patterns, and obesity. Moreover, hormonal contraceptive-associated breast cancer appears to be dependent upon patient factors, formulations, and duration of use. Additionally, using hormone therapy after menopause as taking estrogen and progesterone after menopause (sometimes called combined hormone therapy) increases the risk of getting breast cancer **(Luehmann et al., 2022)**.

Mastectomy is a must and only treatment in many cases of breast cancer. Mastectomy is not an easy decision for any women as they would go through many physical and psychological problems before and after the surgery. Women with mastectomy may experience grief and sadness over the lost organ, shame of being less feminine, and discontent for the loss of sexual attraction. All of these negative feelings can affect not only their body image, self-esteem but also, their self-efficacy **(Perera et al., 2021)**.

Body image is generally defined as "a subjective picture of a person's own physical appearance established by self-observation and by observing the reactions of others". Mastectomy surgery may make a woman feel unattractive with negative body image concerns as it destroys the body image and the sense of the body's completeness and beauty. The affected woman would suffer a sense of sadness similar to that of the loss of a close and dearly loved friend or relative. In addition, feelings of guilt, shame, stigma, loss of dignity, embarrassment of body figure, depression, fear of unknown, low self-esteem, low self-efficacy and feeling inadequate in their roles as a woman and wife **(Gulseren & Aysun, 2021)**.

Furthermore, self-esteem can be defined as psychological well-being, that is, women feel satisfied with her life and the affections related to her body are positive, in that the emotional responses are stable over a period of time, reflecting acceptance of her self-image, as well as in the adaptation of processes arising from her life cycle and social relationships. Furthermore, self- esteem is indicators of tolerance, acceptance and personal satisfaction with own self. For many women with mastectomy, self-esteem is based exclusively on the perception on their own body. So poor perception of their body lead to decrease in self- esteem and produce many cognitive behavioral and emotional alterations which negatively affect not only the wellbeing of women but also, self –esteem and self-efficacy **(Cohen & Paul, 2020)**.

Moreover, self-efficacy can be defined as women beliefs about their abilities to produce designated levels of achievement, exercise influence over events, self-care behavior and self-management that affect their lives. Self-efficacy among women with mastectomy is more impaired than those with other medical conditions as diabetes, hypertension and chronic lung disease. In addition, self-efficacy can be identified by a number of psychological factors that enhanced adherence and better treatment outcomes. Women with high self-efficacy approach difficult tasks as challenges to be mastered rather than as threats to be avoided. In this context, there is growing evidence that self-efficacy among women with mastectomy is correlated with adjustment to illness, increasing control and autonomy, improving symptoms control and enhancing sense of wellbeing and normal functioning **(Zientek et al., 2020)**.

Finally, marital relationships and sexual life of women with mastectomy undergo significant negative changes in response to woman's disfigured body image, lack of self-esteem, and lack of self-efficacy. The absence of a breast and its importance attached to body image may elicit various reactions from others, especially the spouses, which have to be dealt with. Therefore the role of mastectomy women in social, sexual and interpersonal situations may be altered in various ways after surgery, and necessitate that women must learn how to cope not only with herself but also with the reactions of others, especially her male counterpart **(Taib &Farizahl , 2020)**.

Psychiatric and mental health nurse is considered the main person who provides psychological care for these women with mastectomy before and after the operation and later on at the follow-up periods. Preoperative nursing care includes providing psycho education in order to reduce fear and anxiety, as well to improve their coping ability of the women, and promoting their decision-making ability. The postoperative nursing interventions include managing

postoperative sensations, promoting positive body image, enhancing self-esteem and self-efficacy, promoting positive adjustment and coping ability. As well help the women to apply stress management mechanism, nutritional support, monitoring and managing potential complications, link to the home- and community-based care, teaching patients self-care and maintain patients' satisfaction level with the care provided **(Hashem et al., 2020)**.

Significance of the study:

The high prevalence of breast cancer and its negative consequences either physical or psychological associated with mastectomy such as feelings of depression, anxiety, denial, desperation, shame, guilt, isolation, fear of recurrence, and fear of death, which impaired their body image and altered their self-esteem and self-efficacy, indicate the importance of doing many research to support these women **(Gamal, 2020). In Egypt**, breast cancer accounting for 38,8% of total cancer cases in this population , with the estimated number of breast cancer cases nearly 22,700 in 2022 and forecasted to be approximately 64,000 in 2050 **(International Agency for Research on Cancer, 2022).** As well as statistical department at Benha university hospital reported that there are 265 women perform mastectomy surgery at 2022. So, there is a critical need for researchers to conduct this study to assess the correlation between body image, self-esteem and self-efficacy among women with mastectomy.

Aim of the study:

This study aimed to assess the correlation between body image, self-esteem and self-efficacy among women with mastectomy.

Research questions:

What is the correlation between body image, self-esteem and self-efficacy among women with mastectomy?

This can be achieved through the following questions:

1-What are the levels of body image, self-esteem and self-efficacy among women with mastectomy?

2- What is the correlation between body image, self-esteem and self-efficacy among women with mastectomy?

Theoretical & Operational definitions:

Breast cancer is the most common cancer among women, being second cancer with the highest projected death in 2023 in the US behind lung cancer and accompanied by emotional and psychological consequences **(Taparra et al., 2023).**

Mastectomy is breast cancer surgery that removes the entire breast. A mastectomy might be done; when a woman cannot be treated with breast-conserving surgery **(Kaidar et al., 2022).**

Body image refers to the mental picture of one‘s body. Body Image is consisting of three major components: the physiological structure, the libidinous structure, and the sociological structure" **(Sebri et al., 2021).** It will be measured in the current study by using body image scale to assess the level of body image among the studied women with mastectomy.

Self-esteem refers to how we value and perceive ourselves that based on our opinions and believes about ourselves. Self- esteem is indicators of tolerance, acceptance and personal satisfaction with own self (**Cohen & Paul, 2020)**. It will be measured in the current study by using self-esteem scale to assess the level of self-esteem among the studied women with mastectomy.

Self-efficacy refers to an individual belief in his or her capacity to execute behaviors necessary to produce specific performance

attainments. Self-efficacy reflects confidence in the ability to exert control over one's own motivation, behavior and social environment **(Zientek et al., 2020)**. It will be measured in the current study by using self-efficacy scale to assess the level of self-efficacy among the studied women with mastectomy.

Subject and Methods:

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

Setting: The study was conducted at women surgery department at Benha university hospital, Benha City, Qalyubia governorate. This hospital is affiliated to ministry of high education and it consists of two major building, medical building and surgical building. Women surgery department is located in the third floor of surgical building and it consists of 6 rooms (Each room consists of seven beds); three rooms specialized **only** for women with breast cancer surgery (mastectomy) and other three rooms specialized for other general surgeries.

Subjects:

Sample Size:

Based on the past review of literature that examined the same outcome and found significant differences, a sample size has been calculated using the following equation:- $n = (z^2 \times p \times q)D^2$ At power 80% and CI 95%.

The calculated sample size was 100 women with mastectomy.

Sample Technique:

A purposive sample of 100 women with mastectomy surgery was taken from the above mentioned setting according to the following inclusion and exclusion criteria:

Inclusion criteria:

1- Breast cancer women with mastectomy surgery.

2- Aged from 18-65 years old.

3- Willing to participate in the study.

Exclusion criteria:

1- Women who have history of psychotic symptoms.

2-Women who have history of neurological disorders.

3-Women with hearing or visual impairment.

2. Tools of Data Collection:

Four tools were utilized for collecting data.

Tool (I): A Structured Interviewing Questionnaire Sheet:

It was developed by the researchers to achieve the aim of this study after reviewing related literature and it includes two parts; **Part (1)** socio-demographic characteristics of studied women with mastectomy such age, marital status, residence, education level ,occupation, number of family members and income. **Part (2)** Clinical data of the studied women ; It was developed by the researchers and it include information about disease history such as duration of disease, number of previous hospitalization, disease stage , type of treatment, suffering from any other type of cancer , previous surgical removal of any other tumors, family history of cancer .

Tool (II): Body Image Scale:

This scale was originally developed by **Koleck et al., (2002)** and adapted, translated into Arabic language by the researchers. This scale used to assess the level of body image among women with mastectomy. The scale was consisted of 12 items that 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 were ranged from 12-48 degrees and it was classified into 3 categories:

- Poor body image if score (12-24) degrees (<50%).
- Average body image if score (25-36) degrees (50 -%<75%).
- Good body image if score (37- 48) degrees (75 -% ≥ 100%).

Tool (III): Rosenberg Self –esteem scale:

This scale was originally developed by **Rosenberg, (1965)** and adapted by researchers. This scale used to assess the level of self-esteem among women with mastectomy. This scale consists of 10 items and contains positive and negative items. **Positive items** numbered from (1-5) and responses for these positive items are strongly agree=3, agree= 2, disagree= 1, strongly disagree=0. **While negative items** numbered from (6-10) and responses for these negative items are strongly agree= 0, agree= 1, disagree= 2 , strongly disagree=3 .

The total score were ranged from (0-30) degrees and it was classified into 3 categories:

- Low self - esteem if score (0-15) degrees (<50%).
- Moderate self-esteem if score (16-21) degrees (50 -% < 70%).
- High self-esteem if score (22-30) degrees (70 -% ≥ 100%).

Tool (V): Self Efficacy Scale:

The self-efficacy scale was originally developed by **(Chen et al., 2001)** and adapted by the researchers. It was utilized to assess the level of self-efficacy among women with mastectomy. It consisted of 10 questions. The scale is rated on a likert scale that ranges from 1 to 3 as the following: (3= always, 2= some times and 1=rarely). The total score ranged from 10 to 30 with higher total score indicates high self-efficacy. These scores were summed and were converted into a percent score.

The scoring system is categorized as following:

Low self-efficacy if the score (1-15) grades (< 50%)

Moderate self-efficacy if the score (16-21) grades (50% - < 70%)

High self-efficacy if the score (22-30) grades (70% - ≥ 100%)

Administrative approval:

An official permission was obtained from the dean of Faculty of Nursing/Benha University, to the director of Benha university hospital and all authorized personal concerned the title, objective, tools to conduct the proposed study. A full explanation about the aim of the study will be explored.

Validity:

To achieve the criteria of trust and worthiness of the tools of data collection in this study, the tools were tested and evaluated for their face and content validity. Face and content validity were tested by five experts in psychiatric and mental health nursing field. As some modifications will be done such as re-arranging of some sentences at body image scale, changing Arabic and English translation of self-esteem scale and rephrasing of some sentences in self-efficacy scale to be more understandable and easier for the study participants in collecting data.

Reliability:

Reliability was applied by the researchers for testing the internal consistency of the tools, by administration of the same tools to the same participants under similar conditions on one or more occasions. Answers from repeated testing were compared (Test-re-Test reliability) by using Alpha Cronbach reliability. The tools were strongly reliable at

(0.92) for body image scale, (0.95) for self-esteem scale and (0.93) for self-efficacy Scale.

Ethical considerations:

- Approvals from ethical committee at faculty of nursing, Benha university was obtained before data collection and after explaining the aim of the study.
- Approvals from the studied women with mastectomy were obtained before data collection and after explaining the aim of the study.
-Anonymity of the studied women was assured as the filled questionnaire sheets were given a code number (not by names).
-The studied women were ensured that questionnaire sheet will be used only for the purpose of the study and will be discarded at the end of this study.
-The study maneuvers do not entail any harmful effects on participation.
-The studied women who participated in the study were informed about having the right to withdraw at any time without giving any reason.

A Pilot study:

A pilot study was conducted to test the clarity, reliability, and applicability of tools. To achieve that, the study was tested on 10% of the total sample as (10) women with mastectomy. This sample was excluded later from the actual study sample

***The results of the pilot study:**

After conducting the pilot study, it was found that:

(1) The tools were clear and applicable; however, some modifications were made in rephrasing and re-translation of some sentences to be easier and understandable for the studied women with mastectomy.
(2) Tools were relevant and valid.
(3) No problem interferes with the process of data collection was detected.
(4) Following this pilot study the tools were made ready for use.

Field work:

The actual field work of this current study was carried out within 3 months that started from the beginning of March 2024 to the end of May 2024. The study setting was visited by the researchers days (Sunday& Tuesday) per week at morning shift (10a.m-1p.m) to collect data. An individual interview was conducted for every woman with mastectomy. The average time needed was around 20-30 minutes for body image and self -esteem scale and about 10-15 minutes for self-efficacy scale as the researchers meet 4-5 women per day. At the beginning of interview the researchers greeted the studied women, introduced herself to each women, explained the purpose of the study, took oral consent to participate in the study, filled interviewing questionnaire sheet and data collection tools.

Statistical analysis:

The statistical analysis of data was done by using the computer software of Microsoft Excel Program and Statistical Package for Social Science (SPSS) version (20). Data were presented using descriptive statistics in the form of frequencies and percentage of categorical data, the arithmetic mean (X) and standard deviation (SD) for quantitative data. Qualitative variables were compared using chi square test $(X)^2$, P- value to test association between two variables and R- test to the correlation between the study variables.

Degrees of the significance of results were considered as follows :

- P- value > 0.05 Not significance (NS) .
- P- value < 0.05 Significant (S) .
- P- value < 0.000 Highly significance .

Results:

Table (1) reflects socio-demographic characteristics of the studied women with mastectomy. It reveals that, more than one

third (40.0%) of them their aged ranged between 40 to 50 years, with Mean ±SD age is 42.30± 8.05. More than two thirds (68.0%) of them are married. Regarding residence, more than three quarters (82.0%) of them live in rural areas. Concerning education level, nearly two thirds (60.0%) of them have secondary education (diplome). As regard to occupation, nearly two thirds (66.0%) of them are not working. Moreover, the majority (85%) of them mentioned they don't have enough income.

Table (2) explains percentage distribution the studied women with mastectomy according to their clinical data. It shows that, more than half (60.0%) of them suffering from breast cancer for more than one year. Concerning admission to hospital, half (50.0%) of them are admitted at hospital 4-6 times. Regarding disease stage, nearly half (45.0%) of them at the second disease stage and all (100.0%) are received surgical treatment. As well as, three quarters (75%) of the studied women had their family members suffered from cancer and nearly three quarters (73.3%) of them are first degree relatives.

Figure (1) illustrates percentage distribution of the studied women with mastectomy according to their total body image. It reflects that, nearly two thirds (61.0%) of them had poor body image. While, nearly one third (31.0%) had average body image and minority (8.0%) of them had good body image.

Figure (2) reveals percentage distribution of the studied women with mastectomy according to their total self-esteem. It demonstrates that, more than half (59.0%) of them had low self-esteem. As well as, nearly one third (30.0%) had average self-esteem while the minority (11.0%) of them had high self-esteem.

Figure (3) explains percentage distribution of the studied women with mastectomy according to their total self-efficacy. It reports that, more than half (59.0%) of them had low self-efficacy, and nearly one third (31%) of them had moderate self-efficacy, while the minority (10%) of them had high self-efficacy.

Table (3) shows relationship between socio-demographic characteristics of the studied women with mastectomy and their total body image. It demonstrates that there is a highly statistically significant relation between studied women` total body image and their socio-demographic characteristics such as marital status and occupation at (p-value < 0.01**). Also, there is a statistically significant relationship between studied women total body image and their age at (p-value < 0.05*).

Table (4) reflects relationship between socio- demographic characteristics of the studied women with mastectomy and their total self-esteem. It reveals that there is a highly statistically significant relation between studied women total self –esteem and their socio- demographic characteristics such as the women's age , marital status and education level at (P –value < 0.01**).

Table (5) illustrates relationship between socio-demographic characteristics of the studied women with mastectomy and their total self-efficacy. It demonstrates that there is a highly statistically significant relation between studied women's total self-efficacy and their educational level at (P-value < 0.01**). In addition, there is a statistically significant relationship between studied women total self-efficacy with their age, number of family members and their monthly income at (P-value < 0.05*).

Table (6) explains relationship between clinical data of the studied women with mastectomy and their total body image. It

illustrates that there is a highly statistically significant relation between studied women total body image and their disease stage at (P value < 0.01**). Also, there is a statistically significant relation between studied women` total body image, their disease duration and suffering from any other type of cancer at (P value < 0.05*).

Table (7) clarifies relationship between clinical data of the studied women with mastectomy and their total self - esteem. It reveals that there is a statistically significant relation between studied women` total self – esteem and their clinical data such as disease stage and suffering from any other type of cancer at (P value <0.05*).

Table (8) reveals relationship between clinical data of the studied women with mastectomy and their total self - efficacy It reflects that that there is a highly statistically significant relation between studied women's total level of self-efficacy and duration of disease at (P value < 0.01**). Moreover, there is a statistically significant relation between studied women's total level of self-efficacy and disease stage and suffering from other types of cancer at (P value<0.05*).

Table (9) reports correlation between total body image, total self-esteem and total self-efficacy scales among the studied women with mastectomy. It shows that there is a highly statistically significant positive correlation between mean score of total body image, total self- esteem and total self- efficacy among the studied women with mastectomy at (P value < 0.01**).

Table (1): Percentage distribution of the studied women with mastectomy according to their Socio-demographic characteristics (n=100).

Socio-demographic characteristics	Studied women (n=100)	
	N	%
Age		
18-<20 year	2	2.0
20-<30 year	8	8.0
30- <40 year	35	35.0
40-<50 year	**40**	**40.0**
50- <60year	12	12.0
60 -≥65 years	3	3.0
$\bar{x}$ ±SD 42.30± 8.05		
Marital status		
Single	21	21.0
Married	**68**	**68.0**
Divorced	8	8.0
Widow	3	3.0
Residence		
Rural	**82**	**79.0**
Urban	18	18.0
Education level		
Illiterate	1	1.0
Read and write	4	4.0
Primary education	0	0.0
Preparatory education	8	8.0
Secondary education(diplome)	**60**	**60.0**
High education	23	23.0
Postgraduate	4	4.0
Occupation		
Working	34	34.0
Not working	**66**	**66.0**
If answer is working , type of work(n=34)		
Employee at government sector	**18**	**52.9**
Employee at private sector	5	14.7
Free business	11	32.4
Number of family members		
2-4 member	33	33.0
4-6 member	**60**	**60.0**
6-8 member	3	3.0
8 Members or more	4	4.0
Income		
Enough	15	15.0
Not enough	**85**	**85.0**

Table (2): Percentage distribution the studied women with mastectomy according to their clinical data (n=100).

Clinical data	Studied women (n=100)	
	N	%
Duration of the disease		
6 months	10	10.0
6 months to one year	30	30.0
More than one year	**60**	**60.0**
Previous admission to hospital		
Yes	**100**	**100.0**
No	0	0
If yes, number of readmission to hospital (n=100)		
1-2 times	10	7.0
2-4 times	16	16.0
4-6 times	**50**	**50.0**
6 times or more	36	36.0
Disease stage		
First stage	15	15.0
Second stage	**45**	**45.0**
Third stage	28	28.0
Fourth stage	13	13.0
***Types of treatment woman received**		
Surgical treatment	**100**	**100.0**
Radiation therapy	57	57.0
Chemotherapy	**79**	**79.0**
Hormonal treatment	48	48.0
Suffering from any other type of cancer		
Yes	26	26.0
No	**74**	**74.0**
Previous surgical removal of any other tumor		
Yes	26	26.0
No	**74**	**74.0**
If yes , number of surgical removal (n=26)		
Once	**19**	**73.1**
Twice	7	26.9
Three and more	0	0
Family member history of cancer		
Yes	**75**	**75.0**
No	25	25.0
If yes, the relation degree is (n=75)		
First degree relatives	**55**	**73.3**
Second degree relatives	20	26.7

***More than one answer**

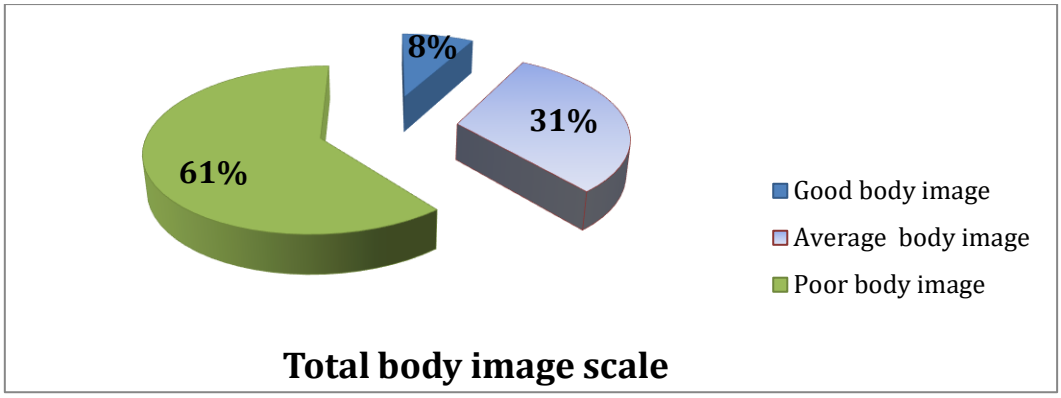

Figure (1): Percentage distribution of the studied women with mastectomy according to their total body image (n=100).

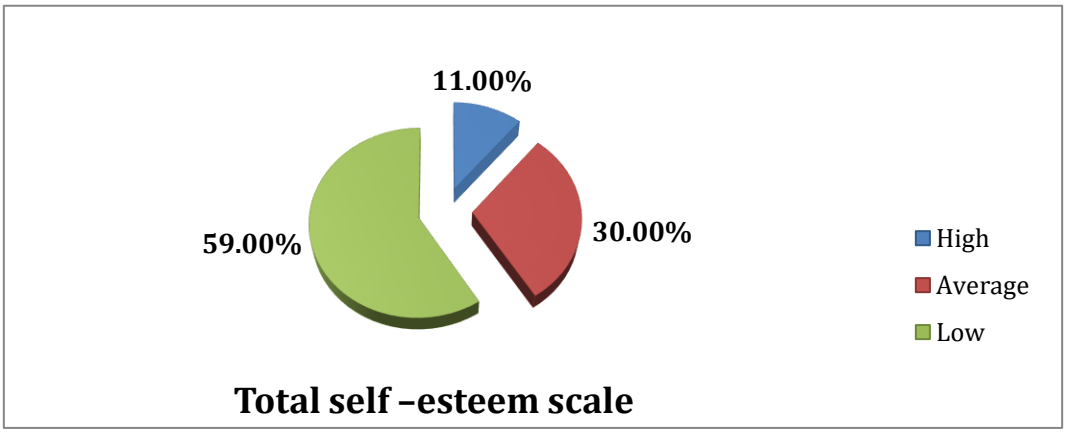

Figure (2): Percentage distribution of the studied women with mastectomy according to their total self-esteem (n=100).

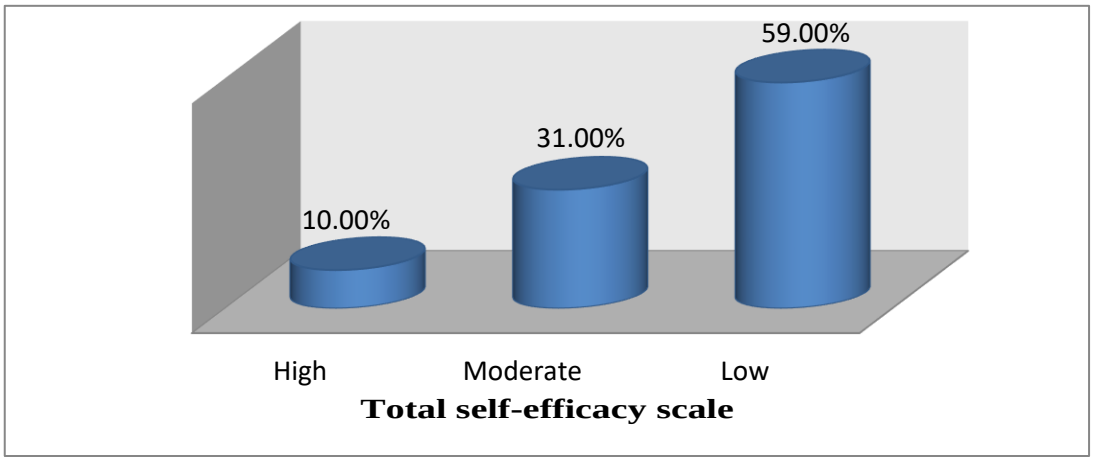

Figure (3): Percentage distribution of the studied women with mastectomy according to their total self-efficacy (n=100).

Table (3): Relationship between socio-demographic characteristics of the studied women with mastectomy and their total body image (n=100).

Socio-demographic characteristics		Total level of body image of the studied women (n=100)						X^2	P-Value
		Good (n=8)		Average (n=31)		Poor (n=61)			
		N	%	N	%	N	%		
Age	18-<20 year	0	0	0	0	2	3.3	13.35	**<0.05***
	20-<30 year	0	0	0	0	8	13.1		
	30- <40 year	0	0	2	6.5	33	54.1		
	40-<50 year	0	0	20	64.5	18	29.5		
	50- <60year	6	75.0	6	19.3	0	0		
	60 -≥65 years	2	25.0	3	9.7	0	0		
Marital status	Single	0	0	2	6.5	25	41.0	25.12	**<0.01****
	Married	7	87.5	26	83.8	29	47.5		
	Divorced	0	0	1	3.2	7	11.5		
	Widow	1	12.5	2	6.5	0	0		
Residence	Rural	5	62.5	23	74.2	51	83.6	7.270	>0.05
	Urban	3	37.5	8	25.8	10	16.4		
Education level	Illiterate	0	0	0	0	1	1.6	6.293	>0.05
	Read and Write	0	0	1	3.2	3	4.9		
	Primary education	1	12.5	1	3.2	3	4.9		
	Preparatory education	1	12.5	2	6.5	5	8.2		
	Secondary education	3	37.5	15	48.3	37	60.7		
	High Education	1	12.5	10	32.3	12	19.7		
	Postgraduate	2	25.0	2	6.5	0	0		
Occupation	Working	1	12.5	3	9.7	30	49.2	22.72	**<0.01****
	Not working	7	87.5	28	90.3	31	50.8		
Number of family members	2-4 member	2	25.0	10	32.3	24	39.3	8.125	>0.05
	4-6 member	3	37.5	19	61.3	35	57.4		
	6-8 member	2	25.0	1	3.2	0	0		
	8 Members or more	1	12.5	1	3.2	2	3.3		
Income	Enough	3	37.5	7	22.6	9	14.7	2.074	>0.05
	Not enough	5	62.5	24	77.4	52	85.3		

No significant at p>0.05. *Significant at p ‹ 0.05. **highly significant at p ‹ 0.01.

Table (4): Relationship between socio- demographic characteristics of the studied women with mastectomy and their total self-esteem (n=100).

Socio –demographic characteristics		Total level of self –esteem of the studied women (n=100)						X^2	P-Value
		High (n=11)		Moderate (n=30)		Low (n=59)			
		N	%	N	%	N	%		
Age	18-<20 year	0	0	0	0	2	3.4	27.10	**<0.01****
	20-<30 year	0	0	0	0	8	13.6		
	30- <40 year	0	0	4	13.3	31	52.5		
	40-<50 year	1	9.1	20	66.7	17	28.8		
	50- <60year	9	81.8	2	6.7	1	1.7		
	60 -≥65years	1	9.1	4	13.3	0	0		
Marital status	Single	0	0	0	0	27	45.8	31.01	**<0.01****
	Married	6	54.5	25	83.3	31	52.5		
	Divorced	2	18.2	5	16.7	1	1.7		
	Widow	3	27.3	0	0	0	0		
Residence	Rural	7	63.7	24	80.0	48	81.4	9.260	>0.05
	Urban	4	36.3	6	20.0	11	18.6		
Education level	Illiterate	0	0	0	0	1	1.7	29.64	**<0.01****
	Read and write	0	0	1	3.3	3	5.1		
	Primary education	0	0	2	6.7	3	5.1		
	Preparatory education	1	9.1	2	6.7	5	8.5		
	Secondary education	1	9.1	13	43.3	41	69.5		
	High Education	5	45.5	12	40.0	6	10.1		
	Postgraduate	4	36.3	0	0	0	0		
Occupation	Working	5	45.5	12	40.0	17	28.8	9.015	>0.05
	Not working	6	54.5	18	60.0	42	71.2		
Number of family members	2-4 member	4	36.3	13	43.3	19	32.2	7.687	>0.05
	4-6 member	3	27.3	15	50.0	39	66.1		
	6-8 member	2	18.2	1	3.3	0	0		
	8 Members or more	2	18.2	1	3.3	1	1.7		
Income	Enough	4	36.4	7	23.3	8	13.6	1.999	>0.05
	Not enough	7	63.6	23	76.7	51	86.7		

No significant at p>0.05. **highly significant at p ‹ 0.01.

Table (5): Relationship between socio-demographic characteristics of the studied women with mastectomy and their total self-efficacy (n=100).

Socio-demographic Characteristics		Total level of self-efficacy of the studied women (n=100)						X^2	P-Value
		High (n=10)		Moderate (n=31)		Low (n=59)			
		N	%	N	%	N	%		
Age	18-<20 year	6	60	12	38.7	2	3.4	6.129	**<0.05***
	20-<30 year	1	10	8	25.8	11	16.9		
	30- <40 year	1	10	2	6.4	20	33.9		
	40-<50 year	0	0	5	16.1	11	18.6		
	50- <60year	1	10	3	9.7	16	27.1		
	60 -≥65years	1	10	1	3.2	1	1.7	1.250	>0.05
Marital status	Single	3	30	15	48.4	16	27.1		
	Married	2	20	7	22.6	18	30.5		
	Divorced	3	30	6	19.4	20	33.9		
	Widow	2	20	3	9.7	5	8.5		
Education level	Illiterate	2	20	17	54.8	14	23.7	19.020	**<0.01****
	Read and write	3	30	6	19.4	28	47.5		
	Primary education	1	10	5	16.2	14	23.7		
	Preparatory education	0	0	0	0	0	0		
	Secondary education	2	20	1	3.2	1	1.7		
	High Education	2	20	0	0	2	3.4		
	Postgraduate	0	0	2	6.4	0	0		
Residence	Urban	3	30	8	25.8	12	20.3	1.098	>0.05
	Rural	7	70	23	74.2	47	79.7		
Occupation	Working	7	70	25	80.6	22	37.3	5.908	>0.05
	Not working	3	30	6	19.4	27	45.7		
Number of family members	2-4 member	3	30	15	48.4	16	27.1	1.250	**<0.05***
	4-6 member	2	20	7	22.6	18	30.5		
	6-8 member	3	30	6	19.4	20	33.9		
	8 Members or more	2	20	3	9.7	5	8.5		
Income	Enough	4	40	30	96.8	23	38.9	5.838	**<0.05***
	Not enough	11	60	2	3.2	37	61.1		

No significant at p>0.05. *Significant at p ‹ 0.05. **highly significant at p ‹ 0.01.

Table (6): Relationship between clinical data of the studied women with mastectomy and their total body image (n=100).

Clinical data		Total level of body image of the studied women (n=100)						X^2	P-Value
		Good (n=8)		Average (n=31)		Poor (n=61)			
		N	%	N	%	N	%		
Duration of disease	6 months	6	75	4	12.9	1	1.6	5.789	**<0.05***
	6 months to 1 year	2	25	20	64.5	15	24.6		
	≥1 year	0	0	7	22.6	45	73.8		
Admission to hospital	1-2times	1	12.5	2	6.4	4	6.6	1.567	>0.05
	2-4times	2	25	5	16.1	9	14.8		
	4-6times	3	37.5	15	48.4	23	37.7		
	>6times	2	25	9	29.1	25	40.9		
Disease stage	First	5	62.5	12	38.7	3	4.9	11.098	**<0.01****
	Second	3	37.5	13	41.9	23	37.7		
	Third	0	0	3	9.7	25	40.9		
	Fourth	0	0	3	9.7	10	16.4		
Suffering from any other type of cancer	Yes	3	37.5	10	32.3	13	21.3	6.293	**<0.05***
	No	5	62.5	21	67.7	48	78.7		
Previous surgical removal of any other tumor	Yes	3	37.5	10	32.3	13	21.3	2.009	>0.05
	No	5	62.5	21	67.7	48	78.7		
Family history of cancer	Yes	6	75	18	58.1	36	59.1	1.345	>0.05
	No	2	25	13	41.9	25	40.9		

No significant at p>0.05. *Significant at p ‹ 0.05. **highly significant at p ‹ 0.01.

Table (7): Relationship between clinical data of the studied women with mastectomy and their total self –esteem (n=100).

Clinical data		Total level of self –esteem of the studied women(n=100)						X^2	P-Value
		High (n=11)		Moderate (n=30)		Low (n=59)			
		N	%	N	%	N	%		
Duration of disease	6 months	2	18.2	3	10	6	10.2	1.004	>0.05
	6 months to 1 year	4	36.4	13	43.3	20	33.9		
	≥1 year	5	45.4	14	46.7	33	55.9		
Admission to hospital	1-2 times	1	9.1	2	6.7	4	6.8	1.666	>0.05
	2-4times	2	18.2	6	20	8	13.6		
	4-6times	4	36.4	10	33.3	27	45.8		
	>6times	4	36.4	12	40	20	33.9		
Disease stage	First	7	63.6	13	43.3	1	1.7	5.771	**<0.05***
	Second	1	9.1	7	23.3	30	50.8		
	Third	2	18.2	6	20	20	33.9		
	Fourth	1	9.1	4	13.3	8	13.6		
Suffering from any other type of cancer	Yes	4	36.4	10	33.3	12	20.3	6.293	**<0.05***
	No	7	63.6	20	66.7	47	79.7		
Previous surgical removal of any other tumor	Yes	4	36.4	10	33.3	12	20.3	2.304	>0.05
	No	7	63.6	20	66.7	47	79.7		
family history of cancer	Yes	6	54.5	19	63.3	35	59.3	1.090	>0.05
	No	5	45.5	11	26.7	24	40.7		

No significant at p>0.05. *Significant at p ‹ 0.05.

Table (8): Relationship between clinical data of the studied women with mastectomy and their total self –efficacy (n=100).

Clinical characteristics		Total level of self-efficacy of the studied women (n=100)						X^2	P-Value
		High (n=10)		Moderate (n=31)		Low (n=59)			
		N	%	N	%	N	%		
Duration of disease	6 months	2	20	11	35.5	29	49.1	2.890	**<0.01****
	6 months to 1 year	4	40	10	32.3	21	35.5		
	≥1 year	4	40	10	32.3	9	15.3		
Admission to hospital	1-2 times	3	30	12	38.7	14	23.7	1.007	>0.05
	2-4times	2	20	7	22.6	21	35.6		
	4-6times	4	40	10	32.3	20	33.9		
	>6times	1	10	2	6.4	4	6.8		
Disease stage	First	7	70	3	9.7	0	0	7.332	**<0.05***
	Second	2	20	28	90.3	54	91.5		
	Third	1	10	0	0	5	8.5		
	Fourth	0	0	0	0	0	0		
Previous surgical removal of any other tumor	Yes	4	40	1	3.2	18	30.5	6.512	>0.05
	No	6	60	30	95.8	41	69.5		
Suffering from any other type of cancer	Yes	1	10	3	9.7	12	20.3	8.002	**<0.05***
	No	9	90	28	90.3	47	79.7		
family history of cancer	Yes	2	20	7	22.6	31	52.5	7.661	>0.05
	No	8	80	24	77.4	28	47.5		

No significant at p>0.05. *Significant at p ‹ 0.05. **highly significant at p ‹ 0.01.

Table (9): Correlation between total body image, total self-esteem and total self- efficacy scales among the studied women with mastectomy (n=100).

Variables	R.	P value
Total body image & Total self-steam	0.381	**<0.01****
Total self-steam & Total self-efficacy	0.414	**<0.01****
Total body image & Total self-efficacy	0.360	**<0.01****

****highly significant at p ‹ 0.01.**

Discussion:

Mastectomy is an important treatment method for women with breast cancer but it has many deep negative impacts which result in a sense of mutilation, diminished self-esteem and may threaten perceptions of femininity for affected women. In previous researches, it has been reflected that amputation one or both breasts was associated with several problems such as loss of femininity, fertility, sexuality, fear of recurrence and negative body image that can inevitably affect mood of the woman and her interpersonal relationships, lead to social stigmatization, and consequently social isolation which have a significant impact on self-esteem of affected women and their self-efficacy **(Skórzewska et al., 2021)**. Therefore, this study was conducted to assess the correlation between body image, self-esteem and self-efficacy among women with mastectomy.

Concerning the socio-demographic characteristics of the studied women with mastectomy, the results of the current study reflected that, more than one third of them their aged ranged between 40 to 50 years, with Mean ±SD age is 42.30± 8.05 years. From the researchers' point of view, this could be due to many studies proved that the age between forty to fifty years is the age of the risk for breast cancer among women. These results were went in the same line with **Abdel-Naby et al., (2022)** found that nearly two-fifth of his studied sample were in age ranged between (41 -≤ 50) years with a mean age of 42.1 ± 4.9.

Regarding marital status of the studied women with mastectomy, the present study findings illustrated that, more than half of them were married. From the researchers' point of view, this might be due to women reached to the age of maturation and productivity especially the high percentage of the studied women was in the middle age. These results were similar with the study of **Brogan, (2022)** reported that more than half of his studied sample was married. In addition, **Prates et al., (2021)** reflected that the nearly two thirds of his studied women were married.

As regard to level of education, the current study findings showed that nearly two thirds of the studied women with mastectomy had secondary education (diplome). Form the researchers" point of view, this might be due to more than one third of them were in the middle age and at this time many girls don't have the interest to reach to high level of education. This result was parallel with the study done by **Ann et al., (2022)** reported that nearly two thirds of his study participants had secondary educational level.

The current study results illustrated that about three quarters of the studied women with mastectomy were living in rural areas. Form researchers" point of view, this could be due to the sample taken from Benha university hospital which serves many rural areas. In addition, rural women might had great risk of breast cancer as they had lack of knowledge about how to perform breast self-examination for discovering any abnormality early. This finding was consistent with the study of **Brajkovic et al., (2021)** explained that the nearly three quarters of his studied sample were living at rural areas.

The present study findings reflected that, nearly two thirds of the studied women with mastectomy were unemployed. From the researchers" point of view, this might be due to the majority of the studied women were from rural areas where prefer to stay at home

and preform house work .This finding was similar with study by **Zhou et al.**, **(2022)** presented that, two thirds of his studied sample were housewives.

Concerning financial income, the current study results explained that, more than three quarters of the studied women with mastectomy said that they don't have enough income. From the researchers" point of view, this could be due to the chronic nature of the disease that required high cost for treatment and follow up. This result consistent with the study done by **Schlebusch & Van, (2021)** found that, the majority of his studied sample had insufficient income. On other hand, this result was inconsistent with the study of **Türk & Yilmaz, (2021)** illustrated that, most of the studied sample had moderate income level.

Concerning clinical data of the studied women with mastectomy, the current study findings reflected that, more than half of them had disease for more than one year. As regard to admission to hospital, all of them were admitted to hospital before as well as more than one third of them were admitted at hospital four to six times. Regarding disease stage, more than one third of them had second disease stage and all of them received surgical treatment. From the researchers', point of view, this could be due to chronicity of the disease that requires frequent hospitalization for treatment and continuous follow up for complete recovery. These findings were in in the same line with the study of **Arroyo& Lopez, (2021)** showed that, half of his studied sample diagnosed since twelve to eighteen months and one third of them were in second stage. As well as the majority of them were treated by surgical tumor removal.

The current study results represented that, more than three quarters of studied women received chemotherapy. Moreover, more than half of them mentioned their family members suffered from cancer and more than two thirds of them were the first degree relatives. From the researchers" point of view, these might be due to chemotherapy is the treatment of choice for breast cancer and hence after mastectomy. As well as, several studies revealed that breast cancer had genetic nature occurring in first degree relatives more than second degree relatives. These findings were parallel with the study of **El Bary et al., (2021)** illustrated that, nearly two thirds of his studied sample was of first-degree relatives and more than three quarters of them received chemotherapy as well as radiotherapy.

Concerning total body image among the studied women with mastectomy, the current study results showed that, nearly two thirds of them had poor body image. While, less than one third of them had moderate body image and minority of them had good body image .From the researchers" point of view, these finding could be due to mastectomy affect negatively on women body image as removal of the breast made women feel depressed, anxious, sadness, had a fear of sexuality relationship because loss of femininity and become less attractiveness, All of these negative feelings decrease their self-esteem and self-satisfaction regarding to their body image. These current findings were consistent with the study done by **Martins et al., (2021)** clarified that nearly two thirds of his participants reported low level of their total body image after mastectomy. Also, **Widianti et al., (2021)** illustrated that the total body image of the women was low after mastectomy among more than half of his studied sample.

Regarding the total self –esteem among the studied women with mastectomy, the present study results revealed that more

than half of them had low self-esteem. Also, less than one third of them had moderate self-esteem while the minority of them had high self-esteem. From the researchers" point of view, these results might be due to mastectomy surgery leads to many negative feelings such as stress, anxiety, depression, sadness, fear, sense of hopelessness, helplessness and sense of loss of their marital relationship as well as feeling of self-dissatisfaction, poor body image and become less attractive which lead to low self-esteem and social isolation. These findings were went in the same line with the study of **Cieślak& Golusiński, (2020)** represented that more than half of his studied sample had low total levels of self-esteem. on other hand, these results were contradicted with the study of **Cobo-Cuenca et al., (2021)** revealed that more than half of his studied sample had satisfied level of self-esteem .

As regard to total self- efficacy among the studied women with mastectomy, the present study results reflected that more than half of them had low self-efficacy, and less than one third of them had moderate self-efficacy, while the minority of them had high self-efficacy. From the researchers" point of view, these might be due to negative consequences of mastectomy as negative feelings (stress, depression &anxiety) negative body image, social isolation, inability to perform activities of daily living, and low self-esteem are the main rationales regarding low level of self-efficacy among the studied women in the current study. These current findings were approved with the study done by **Tarkowska et al., (2020)** proved that more than half of his studied sample reported lower self-efficacy compared to healthy women. On other hand, these findings were in disagreement with the study done by **Vogit et al., (2020)** showed that more than half of his studied sample had moderate level of self - efficacy.

As regard to relationship between socio-demographic characteristics of the studied women with mastectomy and their total body image. The present study findings demonstrates that there is a highly statistically significant relation between studied women` total body image and their socio-demographic characteristics such as marital status and occupation. From researchers' point of view, these findings could be due to presence of partner and having work friends support women to increase their adaptability to their condition and appearance and subsequently accept their body image and enhance their psychological well-being.

The current study results were consistent with **Brandt-Salmeri et al., (2020)** revealed that body image was a highly significantly significant with the marital status and occupation in his studied sample. Also, these results were approved with the study of **Phoosuwan & Lundberg, (2021)** demonstrated that socio-demographic characteristics such as occupation and marital were associated with body image dissatisfaction among his studied sample. On other hand, these findings were contradicted with the study of **Turk &Yilmaz, (2021)** reported that there was no statistically significant relation with body image and demographic characteristics as occupation and marital status among his studied women after mastectomy surgery.

Regarding relationship between socio-demographic characteristics of the studied women with mastectomy and their total self-esteem. The current study results revealed that that there is a highly statistically significant relation between studied women total self - esteem and their socio- demographic

characteristics such as the women's age , marital status and education level. From the researchers' point of view, this might be due to levels of education, age and marital status facilitate easy understanding, acceptance and interaction with coping measures of disease which reflected-on women's health condition and enhance psychological status that improve their self-esteem.

These present findings were in the same line with study achieved by **Kanmaz & Aricak, (2021)** reported that a highly statistically significant relation was found between studied women total self –esteem and their socio- demographic characteristics such as the women's age, marital status and education level.

Concerning relationship between socio-demographic characteristics of the studied women with mastectomy and their total self-efficacy. The current study findings demonstrates that there is a highly statistically significant relation between studied women's total self-efficacy and their educational level. In addition, there is a statistically significant relationship between studied children's total self-efficacy with their age, number of family members and their monthly income. From the researchers' point of view, these results could be due to advanced age and high level of education help in understanding the serious nature of the disease and coping effectively with it which enhance the level of self-efficacy over the time.

Moreover, enough income help in obtaining all required treatment and follow up at high level of care that enhance psychological status and hence self-efficacy. In the same line, these findings were approved with a study done by **Amir & Ali, (2021)** explained that there was a statistically significant positive relation between total self-efficacy in relation to level of education, age, number of family members and family income among his studied sample.

As regard to relationship between clinical data of the studied women with mastectomy and their total body image. The present study illustrated that there is a highly statistically significant relation between studied women total body image and their disease stage. Also, there is a statistically significant relation between studied women` total body image, their disease duration and suffering from any other cancer. From the researchers point of view, these findings might be due to after one year from diagnosis of breast cancer the women start thinking about mastectomy and their body image so they search to solve their problems in order to deal with her children, husband and surrounding people. In the same line, these results were went in the same line with the study done by **Yamani et al., (2020)** who represented that there was a statistically significant relation between women's body image and their diagnosis duration and the stage of disease.

Concerning relationship between clinical data of the studied women with mastectomy and their total self-esteem. The present study revealed that there is a statistically significant relation between studied women` total self-esteem and their clinical data such as disease stage and suffering from other cancer. This result could be due to mastectomy decrease women's general health, appearance, attractiveness which caused them stressed, depressed, anxious all the time leading to social isolation and low self-esteem. These findings were approved with the study done by **Cieslak & Golusinski, (2020)** mentioned that the women's self-esteem was highly statistically significant with medical history of

his studied sample such as suffering from any other cancer and stage of disease.

Regarding relationship between clinical data of the studied women with mastectomy and their total self - efficacy. The present study results reflected that that there is a highly statistically significant relation between studied women's total level of self-efficacy and duration of disease. Moreover, there is a statistically significant relation between studied women's total level of self-efficacy and disease stage and suffering from other types of cancer. From the researchers' point of view, these might be due to long duration of disease, early disease stage, free from any other types of cancer as reported by nearly half of the studied women playing an important role in coping effectively with the disease, improving their self-esteem and self-efficacy. These results were parallel with **El far & Zaki (2020)** illustrated that there was a statistically significant relation between total self-efficacy and the medical data items as duration of disease, disease stage and suffering from other types of cancer.

As for correlation between total body image, total self-esteem and total self-efficacy among the studied women, the current study results illustrated that a highly statistically significant positive correlation between mean score of total body image, total self- esteem and total self- efficacy. These findings could be due to the improvement of body image and physical attractiveness will positively enhance the self-esteem satisfaction of women which will have a positive effect on their psychological adjustment and improved their self-efficacy. This mean when body image improves, self-esteem and self- efficacy also improve. These results were in the same line with the study of **Adetayo et al., (2020)** showed that there was a highly statistically significant positive correlation between total body image and total self-esteem & total self-efficacy among his studied sample.

Conclusion:

There was a strong relationship between body image, self-esteem and self-efficacy among the studied women with mastectomy as nearly two thirds of them had poor body image. In addition, more than half of them had low levels of self-esteem and self-efficacy. Moreover, there was a highly statistically significant positive correlation between mean scores of total levels of body image, self-esteem and self-efficacy among the studied women with mastectomy.

Recommendations:

- Psycho-educational program needs to become an integral entity of comprehensive care for all women with mastectomy to enhance their body image, self-esteem and self - efficacy.
- Implementation mindfulness-based stress reduction and cognitive therapies to enhance spiritual wellbeing and self- esteem and hence self - efficacy.
- Breast reconstruction surgery should be encouraged to maintain a normal female body image and improve their self- esteem.

Further researches: Replication of the study using larger sample in different correctional settings to generalize the results.

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References:

Abdel-Naby,Y. Z., Abdel-Hamid Z. R., & Mohamed A. F. (2022). Effect of Psycho-educational Nursing Program on Body Image, Self-esteem and Quality of Sexual Life among Women with Breast Cancer. Journal of Nursing Science Benha University, 3(1), 288-304.

Adetayo, A., B., & Bukola, A. (2020). Relevance of body image, physical attractiveness, sexual satisfaction and self-esteem in the joint and independent influence on psychological adjustment pf patients that undergo mastectomy.

Amir,M., & Ali,Z.(2021). Quality Of Life And Related Factors Among The Women Undergoing Mastectomy, Iran J Nurs Midwifery Res.; 20(2): 287–291.

Ann, J., Zhou, K., Li, M., & Li, X. (2022). Assessing the relationship between body image and quality of life among rural and urban breast cancer survivors in China. BMC Women's Health, 22(1), 1-10.

Arroyo, J., & Lopez, M.(2021). Psychological Problems Derived from Mastectomy: A Qualitative Study: International Journal of Surgical Oncology, article
ID 13246.

Brajkovic, L., Sladic, P., & Kopilaš, V. (2021). Sexual Quality of Life in Women with Breast Cancer. Health Psychology Research, 9(1) pp:322-343.

Brandt-Salmeri, A., Ilska, M., & Kołodziej-Zaleska, A. (2020). Body image in women with breast cancer undergoing surgical treatment-a comparative analysis. Zeszyty Naukowe. Organizacja i Zarządzanie/Politechnika Śląska.

Brogan, J.L.(2022) . Body image dissatisfaction and quality of life : The role of Self –esteem and depression in patients with mastectomy surgery .

Chen, G., Gully, M., & Eden, D. (2001). Validation of a new self-efficacy scale, Organizational research methods, 4(1), 62-83.

Cieślak, K., & Golusiński, W. (2020). Coping with loss of ability vs. emotional control and self-esteem in women after mastectomy. Reports of practical oncology and radiotherapy, 23(3), 168-174.

Cobo-Cuenca, A. I., Martín-Espinosa, N. M., Rodríguez-Borrego, M. A., & Carmona-Torres, J. M. (2021). Determinants of satisfaction with life and self-esteem in women with breast cancer. Quality of Life Research, 28(2), 379-387.

Cohen,L ., & Paul, E., (2020). The Effects of Type of Surgery and Time on Psychological Adjustment in Women After Breast Cancer Treatment , Annals of Surgical Oncology , 7(6): 427-434 . Published by Lippincott Williams &Wilkins @2020 The Society of Surgical Oncology , Inc .

El Bary, N. A., Eldoushy, E. E., & Shaala, S. A. (2021). Impact of Mastectomy on Coping Strategies, Body Image and Self-Satisfaction for Egyptian Females.

El far, S. & Zaki, A. (2020). Self-esteem and Self-Efficacy among women undergoing mastectomy ,Thesis, Psychatric nursing, Faculty of Nursing, PP 20-22.

Gamal , S., (2020). Body Image dissatisfaction in cancer survivors . Oncology Nursing Forum ,34:36-41.

Gulseren ,K.,&Aysun ,B.(2021). Turkish Mastectomy Women – Depression ,Body Image ,Sexual Proplems and Spouse Relatonships ,Asian Pacific Journal of Cancer Prevention ,Vol.12.

Hashem, E., Mohammed, A., Youssef Sayed, S., & Thabet Ayoub, M. (2020). Effect of Educational Nursing Program on Performance and Self-efficacy of Females Undergoing Mastectomy. Assiut Scientific Nursing Journal, 8(21), 74-83.

International Agency for Research on Cancer .(2022). Cancer Control in Egypt :Investing in Health. Available at https :\\ gco iar,fr\today \ data \factsheets \population Egypt –fact-sheets .pdf. Accessed on 25-10-2023 at 5 pm.

Kanmaz, Z., & Aricak, O. T. (2021). The Effects of Mastectomy and Post-Mastectomy Reconstructive Surgery of Breast-cancer Patients on their Depression, Self-esteem and Self-efficacy Beliefs. Psychiatry and Behavioral Sciences, 9(3), 119-127.

Kaidar, O., Boersma, L. J., Poortmans, P., Sklair-Levy, M., Offersen, B., Cardoso, M. , & De Ruysscher, D. (2022). Residual glandular breast tissue after mastectomy: a systematic review. Annals of surgical oncology, 27(7), 2288-2296.

Koleck, M., Bruchon, M., Cousson, F., Gilliard, J., & Quintard, B. (2002). The body-image questionnaire: an extension. Perceptual and Motor Skills, 94(1), 189-196.

Luehmann, N., Ascha, M., Chwa, E., Hackenberger, P., Termanini, K., Benning, C., & Jordan, S. (2022). A Single-Center Study of Adherence to Breast Cancer Screening Mammography Guidelines by Transgender and Non-Binary Patients. Annals of surgical oncology, 29(3), 1707-1717.

Martins ,F, B., Martins ,R, I., Verri , M, L., da Silva ,P, U., & Vilges de Oliveira, S. B.(2021). The impact of mastectomy on body image and sexuality in women with breast cancer: a systematic review. Psicooncología, 18(1).

Perera , A., Shawki ,M ., Rachid ,A., & Jomaa,M.(2021) . Breast Cancer Awareness among Egyption Women and the Impact of caring patients with Breast Cancer on Family , Research in Oncology 2021 ,17(1),1-8.

Phoosuwan, N., & Lundberg, P. (2021). Body Image, Life Satisfaction and Associated Factors Among Swedish Women with Breast Cancer After Mastectomy.

Prates, A. C., Freitas.J, R., Prates, M. F., Veloso, M. D., & Barros, N. D. M. (2021). Influence of body image in women undergoing treatment for breast cancer. Revista Brasileira de Ginecologia e Obstetrícia, 39, 175-183.

Rosenberg., M . (1965). Rosenberg self – esteem scale. Acceptance and commitment therapy. Meas. Package , 61, 18.80.

Schlebusch, L., & Van, H. (2021). Psychological considerations of body image and self-esteem as correlates of augmentation mammoplasty and breast cancer in women. World Scientific News, 132, 52-64.

Sebri, V., Durosini, I., Triberti, S., & Pravettoni, G. (2021). The efficacy of psychological intervention on body image in breast cancer patients and survivors: a systematic-review and meta-analysis. Frontiers in Psychology, 12, 407.

Skórzewska, M., Kurylcio, A., Rawicz-Pruszyński, K., Chumpia, W., Punnanan, B., Jirapongvanich, S., & Mielko, J. (2021). Impact of mastectomy on body image and sexuality from a LGBTQ perspective: a narrative review. Journal of Clinical Medicine, 10(4), 567.

Taib,N., & Farizah,H.(2020). Breast cancer in Malaysia: are our women getting the right message ? 10 year – experience in a single institution in Malaysia . Asian Pac Journal Cancer Prevention ,8,141-145.

Taparra, K., Fukui, J., Killeen, J., Sumida, K., Loo, L. W., & Hernandez, B. Y. (2023). Racial and Ethnic Disparities in Rates of Invasive Second Breast Cancer Among Women With Ductal Carcinoma In Situ in Hawai‘i. JAMA Network Open, 4(10), e2128977-e2128977.Accessed on 23-5-2023 at 11 pm.

Tarkowska, M., Głowacka, I., Nowikiewicz, T., Monastyrska-Waszak, E., Gastecka, A., Goch, A., & Zegarski, W. (2020). Sexual functioning and self-esteem in women after mastectomy–a single-centre, non-randomised, cross-sectional study. Contemporary Oncology, 24(2), 106.

Türk, K. E., & Yilmaz, M. (2021). The effect on quality of life and body image of mastectomy among breast cancer survivors. European journal of breast health, 14(4), 205.

Voigt, B., Grimm, A., & Schneider, A.(2020). Body image of breast cancer patients prior to and after mastectomy related therapeutically intervention , 28:3-106 P-050.

Widianti, M., Yona, S., & Waluyo, A. (2021). Body image, social support, effects of chemotherapy, and sexual desire in breast cancer patients. Journal of International Dental and Medical Research, 12(1), 323-330.

Yamani , A.B ., Tirgari.B. A., &Roudi.R.O., (2020). Body image and its relationship with coping statigies : The views of Iranian breast cancer women following surgery . European Journal Of Cancer Care , 29(1), e 13191.

Zhou, K., Wang, W., Li, M., An, J., Huo, L., He, X., & Li, X. (2022). Body image mediates the relationship between post-surgery needs and health-related quality of life among women with breast cancer: a cross-sectional study. Health and Quality of Life Outcomes, 18(1), 1-11.

Zientek, L., Carhonj, J., & Fong, M. (2020). Sources of self-efficacy of community college students enrolled in developmental mathematics. Journal of Further and Higher Education, Vol. 1, pp. 1-18.

العلاقه بين صورة الجسد والثقه بالنفس والكفاءه الذاتيه لدى السيدات الخاضعات لجراحة استئصال الثدى

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تتسبب جراحه إستئصال الثدى فى العديد من الأثار السلبيه الجسديه والنفسيه والعاطفيه لدى السيدات الخاضعات لهذه الجراحه مما ينعكس سلبا ليس فقط على صورة جسدهن بل أيضا على مستوى الثقه بالنفس و الكفاءه الذاتيه لديهن.وهدفت هذه الدراسه إلى تقييم العلاقه بين صورة الجسد والثقه بالنفس والكفاءه الذاتيه لدى السيدات الخاضعات لجراحة إستئصال الثدى. حيث تم إستخدام تصميم وصفى لإجراء هذه الدراسه.وأجريت هذه الدراسه بقسم الجراحه بمستشفى بنها الجامعى بمدينه بنها بمحافظه القليوبيه والتابعه لوزارة التعليم العالى . وتم تطبيق هذه الدراسه على عينه غرضيه مكونة من عدد (100) من السيدات الخاضعات لجراحه إستئصال الثدى من المكان المذكور أعلاه. كما تم إجراء هذه الدراسه بإستخدام الأدوات التاليه : الأداة الاولى إستمارة إستبيان مصممه للمقابله الشخصيه والأداة الثانيه مقياس صورة الجسد والأداة الثالثه مقياس الثقه بالنفس والأداة الرابعه مقياس الكفاءة الذاتيه .وكشفت نتائج هذه الدراسه إلى ما يقرب من ثلثى السيدات الخاضعات للدراسه لديهن صورة جسد سيئه فى حين أن أكثر من نصفهن لديهن مستوى منخفض من الثقه بالنفس والكفاءه الذاتيه. وقد أوضحت الدراسة بعض الإستنتاجات وهى وجود علاقه إرتباطيه إيجابيه ذات دلاله إحصائيه قويه بين صورة الجسد والثقه بالنفس والكفاءه الذاتيه لديهن .حيث أوصت هذ الدراسه بضرورة دمج وإدخال برنامج تعليمى نفسى فى الرعايه التمريضيه المقدمه لهؤلاء السيدات لتحسين صورة الجسد ومن ثم رفع الثقه بالنفس والكفاءه الذاتيه لديهن.