Acceptance and Commitment Training Program for Self-Compassion and Body-Image among Women with Mastectomy

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Background: Mastectomy women face many changes to their body in a more negative, ruminative way which may lead these women to criticize themselves and hence negatively affect not only their body-image, but also, their self-compassion. **Aim of the study**: This study aimed to evaluate the effect of acceptance and commitment training program on self-compassion and body-image among women with mastectomy. **Resarch design:** A quasi experimental design (one group pre and posttest) 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, more than half (55%) of the studied women had high level of self-compassion and more than half (56%) of the studied women had good level of body-image post-program implementation than before. **Conclusion:** Acceptance and commitment training program had a positive effect on self-compassion and body-image among the studied women with mastectomy. **Recommendations:** Generalization of acceptance and commitment training program for all women with mastectomy in all hospital to improve their self-compassion and hence their body-image.

***Key words*:** Mastectomy, body-image, self-compassion, acceptance and commitment

Introduction:

Mastectomy is an important part of breast cancer treatment along with radiation and systemic treatments such as hormonal therapy, radiotherapy and chemotherapy ***(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)***.

Women after mastectomy, report a significant alteration of the body such as body dysmorphia which affects both emotional and sexual functioning, especially in younger women. In addition to, the psychological effects that women suffer like negative emotions such as sadness, low mood, and depression which in turn decrease women's self-compassion and negatively affect their body-image ***(Simion et al., 2024)***. Furthermore, body-image after mastectomy negatively affected by the rapid physical changes of the body which made women feel disconnected from their body. Negative thoughts associated with body-image after mastectomy such as fear of not being attractive or desirable, can create feelings of insecurity and self-doubt. Also, losing a part of or whole breast tissue as a secondary sex organ can determine alterations in gender identity and cause a variety of subjective

reactions in the sexual domain ***(Scotto et al., 2024)***. 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)***.

A great relationship was found between self-compassion and body-image as self-compassion helps to reduce women body dissatisfaction and promote healthy body image among them and enhance understanding self-kindly rather than harshly self-critical when feel inadequate ***(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 a useful approach to improving body-image disturbances. Several studies showed that increased SC was associated with decreased body surveillance and body shame. Women with high levels of SC treat their body changes in a non-judgmental manner, rather than excessively indulge in others' evaluation of their appearance, which may reduce surveillance and shame of body ***(Zhu et al., 2023)***.

Acceptance and commitment training is a mindfulness-based behavior therapy that uses the six core processes of (acceptance, cognitive defusion, mindfulness, self as context, values, and committed action). Also, it minimizes the impacts of negative and distorted/annoyed thoughts or feelings on health-related outcomes, by improving psychological flexibility, help to correct negative thoughts associated with body-image through cognitive defusion and also increase women's awareness of their body through being present and mindfulness which increase self-compassion among women with mastectomy ***(Zhao et al., 2024)***. Also, it helps to improve quality of life among such women by decreasing sadness, anxiety, pain and provide a life worth living by giving meaning purpose ***(Atia 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 boy image, increase connection to the present moment through mindfulness, accepting their new body after mastectomy, and setting goals, guided by values, and taking effective action toward self through such painful experience ***(Aghili et al., 2024)***.

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 evaluate the effect of acceptance and commitment training program on self-compassion and body-image among women with mastectomy.

Aim of the study:

The aim of this study was to evaluate the effect of acceptance and commitment training program on self-compassion and body-image among women with mastectomy.

Research hypothesis:

Acceptance and commitment training program will have a positive effect on self-compassion and body-image among women with mastectomy.

Research design:-

A quasi experimental design (one group pre and posttest) 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.

2- Designing phase:-

- This phase aimed to plan for acceptance and commitment training program through setting educational objectives, preparing the acceptance and commitment training program, designing the methodology and media and determine the total number of session and the duration of each session.

Development of acceptance and commitment training program:

- Acceptance and commitment training program was developed by the researcher after review of literatures and after making the pilot study. The program content was developed by the researcher in the form of a booklet, which was revised and approved by the supervisors. The acceptance and commitment training program aimed to evaluate the effect of acceptance and commitment training program for self-compassion and body-image among women with mastectomy. This program has a set of general objectives and specific objectives for each session. The number of program's sessions was 12 sessions (4 theoretical and 8 practical). It was implemented for 2 day every week and each session take (60-90 min) for theoretical sessions and (90-120 min) for practical sessions a day (according to subjects understanding and span of attention and content of sessions). The final booklet was distributed for all studied women with mastectomy in the first session to make them familiar with the program contents and provide knowledge helping them in reflecting their own experiences.

3- Implementation phase:

The implementation phase of the study has done through three phases; Assessment phase (pre-test), implementation phase and post assessment phase.

I. Data collection pre-test (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 and program content.
- Each subject was interviewed individually pre applying the planned program 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 informed them about their rights to withdraw from the study without any reason.
- The pre-test 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.

II. Implementation of the program:-

- The program consisted of 12 sessions, 4 sessions theoretical and 8 sessions practical.
- The researcher divided 60 studied women into10 subgroups each subgroup consist of 6 women with mastectomy and each one was attending a total of 12 sessions.
- The researcher took 2 subgroups/ day. Two subgroups were attended 2days/ weeks (Saturday and Thursday) and attend all 12 sessions of the program in a period of 6 weeks.
- The sessions of the acceptance and commitment training program were carried out in nearly 8 months and half (1 month & 2 weeks for pre-test and 7 months and 1 week for program sessions) during the period of (beginning of August 2022 to the 22 April 2023).
- To ensure the women understanding of the program contents, each session was started with a summary about what was given

through the previous session and the objectives of the new session were mentioned taking into consideration using simple language to suit all women.

- During the session, the researcher used several teaching methods such as lecture, discussions, brain storming, and demonstration, re- demonstration, role-play & modeling. Data show, video, pictures and booklet were used as media to facilitate explanation and to be a reference for them.
- The researcher made a summary, feedback; further clarifications were done for vague items at the end of the session. After finishing, the researcher thanked the women for their participation and encouraged them for asking about any unclear points.

The acceptance and commitment training program consisted of the following sessions:-

Session 1:- Acquaintance session.

Session 2:- Overview about mastectomy.

Session 3:- Overview about self-compassion & body-image.

Session 4-11:- Application of acceptance and commitment training program techniques that improve self-compassion and body-image

Session 12:- Summery of the program sessions.

Evaluation phase (Post-test):

This phase aimed to evaluate the effect acceptance and commitment training program on self-compassion and body-image among women with mastectomy. This made at the end of the program following the same pattern of interviewing (posttest) using the pervious assessment tools for data collection to compare the effect of the program pre post intervention.

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 (x2) 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 $P < 0.05$*
- Not 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 ±SD of age is 38.14 ± 6.17 years. Regarding marital status, two thirds (66.7%) of them are married.

Figure (1): Illustrates that, there is a decrease in the level of low self-compassion from (86.7% to 5.0 %) post program implementation than before, while, there is an increase in the level high self-compassion from (3.3% to 55%) post program implementation than before among the studied women with mastectomy with statistically significant difference at p<0.000.

Figure (2): Reflects that, there is decrease in the level of poor body-image from (90.0% to 3.0%) post program implementation than before, while, there is increase in the level of good body-image from (3.3% to 56.0%) post program implementation than before among the studied women with mastectomy with statistically significant difference at p<0.000.

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

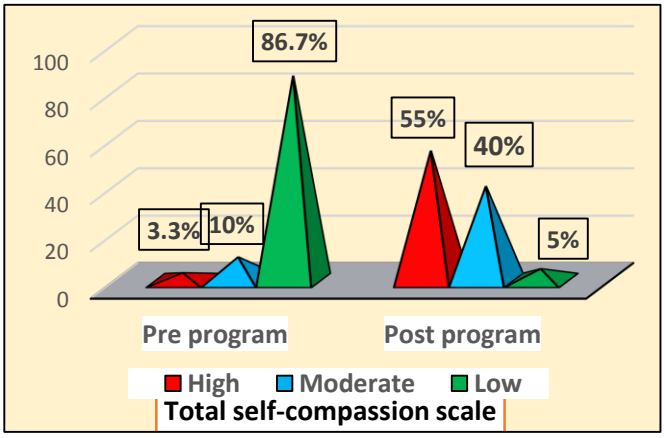
Table (4) Illustrates that, there is a statistically significant relation between total level of women's body-image and (age and marital status) pre and post program implementation at (P-value= < 0.05)*.

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 performed pre and post program implementation at (P-value= < 0.05)*.

Table (6): 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 pre and post program implementation at p- value < 0.000.**

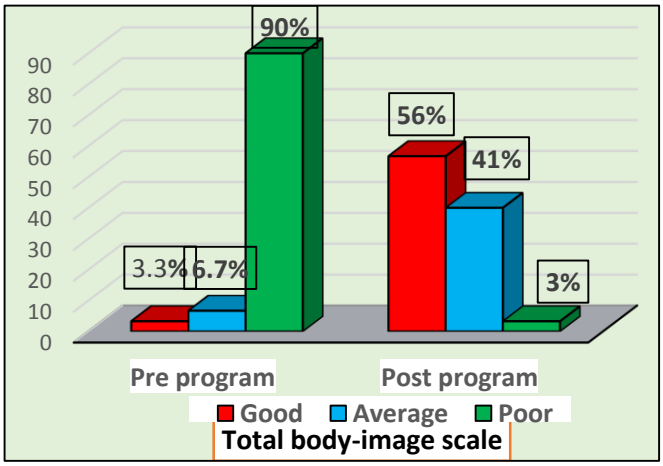
Table (1):
Percentage distribution of the studied women with mastectomy according to their socio-demographic data **(n=60).**

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



X^2 = 81.91 P-value=<0.000

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



X^2 = 91.61 P-value=<0.000**

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

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

Socio-demographic data of the studied women		Total level of self-compassion Pre-program						X2	P-Value	Total level of self-compassion Post-program						X2	P-Value
		High (n=2)		Moderate (n=6)		Low (n=52)				High (n=33)		Moderate (n=24)		Low (n=3)			
		No.	%	No.	%	No.	%			No.	%	No.	%	No.	%		
Age (years)	18 - < 25 years	1	50.0	0	0.0	2	3.9	**13.05**	**<0.05***	3	9.1	0	0.0	0	0.0	**12.50**	**<0.05***
	25 - < 35 years	1	50.0	1	16.7	10	19.2			5	15.2	7	29.2	0	0.0		
	35 - < 45 years	0	0.0	3	50.0	32	61.5			20	60.6	13	54.2	2	66.7		
	45 - < 55 years	0	0.0	1	16.7	6	11.5			5	15.2	2	8.3	0	0.0		
	55- ≤ 65 years	0	0.0	1	16.7	2	3.9			0	0.0	2	8.3	1	33.3		
Marital status	Single	0	0.0	0	0.0	5	9.6	**8.896**	**<0.05***	4	12.1	1	4.2	0	0.0	**5.622**	**<0.05***
	Married	2	100.0	5	83.3	33	63.5			21	63.6	16	66.7	3	100.0		
	Widowed	0	0.0	1	16.7	12	23.1			8	24.2	5	20.8	0	0.0		
	Divorced	0	0.0	0	0.0	2	3.8			0	0.0	2	8.3	0	0.0		
Education level	Read and writes	0	0.0	0	0.0	1	1.9	3.414	>0.05	1	3.0	0	0.0	0	0.0	6.430	>0.05
	Primary education	0	0.0	0	0.0	2	3.9			1	3.0	1	4.2	0	0.0		
	Preparatory education	0	0.0	3	50.0	12	23.1			6	18.2	7	29.2	2	66.7		
	Secondary education (diplome)	1	50.0	2	33.3	18	34.6			11	33.3	10	41.7	0	0.0		
	University education	1	50.0	1	16.7	19	36.5			14	42.4	6	25.0	1	33.3		
Occupation	Working	0	0.0	2	33.3	21	40.4	1.399	>0.05	14	42.4	7	29.2	2	66.7	2.106	>0.05
	Not working	2	100.0	4	66.7	31	59.6			19	57.6	17	70.8	1	33.3		
Residence	Rural	1	50.0	5	83.3	31	59.6	1.399	>0.05	20	60.6	15	62.5	2	66.7	0.054	>0.05
	Urban	1	50.0	1	16.7	21	40.4			13	39.4	9	37.5	1	33.3		
Monthly income	Enough	1	50.0	1	16.7	5	9.6	6.330	>0.05	5	15.2	2	8.3	0	0.0	1.128	>0.05
	Enough and can be saved	0	0.0	0	0.0	18	34.6			10	30.3	7	29.2	1	33.3		
	Not enough	1	50.0	5	83.3	29	55.8			18	54.5	15	62.5	2	66.7		
Number of family members	2-4 members	1	50.0	3	50.0	13	25.0	3.110	>0.05	9	27.3	6	25.0	2	66.7	2.514	>0.05
	5-7 members	1	50.0	3	50.0	29	55.8			18	54.5	14	58.3	1	33.3		
	More than 7 members	0	0.0	0	0.0	10	19.2			6	18.2	4	16.7	0	0.0		

$X^{2:}$ Chi Square Test. No significant at p >0.05. Statistically significant at p<0.05. *

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

Clinical data of the studied women		Total level of self-compassion Pre-program						X2	P-Value	Total level of self-compassion Post-program						X2	P-Value
		High (n=2)		Moderate (n=6)		Low (n=52)				High (n=33)		Moderate (n=24)		Low (n=3)			
		No.	%	No.	%	No.	%			No.	%	No.	%	No.	%		
Duration of breast cancer	< 6 months	2	100.0	0	0.0	0	0.0	**7.107**	**<0.05***	2	6.1	0	0.0	0	0.0	**8.055**	**<0.05***
	6 months - <1 year	0	0.0	0	0.0	11	21.2			5	15.2	6	25.0	0	0.0		
	1 year - < 2 years	0	0.0	2	33.3	11	21.2			8	24.2	3	12.5	2	66.7		
	2 years- < 3years	0	0.0	2	33.3	13	25.0			9	27.3	6	25.0	0	0.0		
	3 years or more	0	0.0	2	33.3	17	32.6			9	27.3	9	37.5	1	33.3		
Disease stage	First stage	1	50.0	4	66.7	1	1.9	**8.675**	**<0.05***	4	12.1	1	4.2	1	33.3	**3.202**	**<0.05***
	Second stage	1	50.0	1	16.7	23	44.3			13	39.4	11	45.8	1	33.3		
	Third stage	0	0.0	1	16.7	10	19.2			7	21.2	4	16.7	0	0.0		
	Fourth stage	0	0.0	0	0.0	18	34.6			9	27.3	8	33.3	1	33.3		
Type of mastectomy performed	Lumpectomy	2	100.0	0	0.0	9	17.3	**10.64**	**<0.05***	7	21.2	3	12.5	1	33.3	**4.252**	**<0.05***
	Total mastectomy of one breast	0	0.0	2	33.3	16	30.8			11	33.3	6	25.0	1	33.3		
	Total mastectomy of two breasts	0	0.0	2	33.3	10	19.2			7	21.2	4	16.7	1	33.3		
	Modified radical mastectomy	0	0.0	2	33.3	17	32.7			8	24.2	11	45.8	0	0.0		
Previous admission to hospital	Yes	1	50.0	6	100.0	41	78.8	2.668	>0.05	27	81.8	18	75.0	3	100.0	1.193	>0.05
	No	1	50.0	0	0.0	11	21.2			6	18.2	6	25.0	0	0.0		
Suffering from any other type of cancer	Yes	0	0.0	1	16.7	10	19.2	0.488	>0.05	7	21.2	4	16.7	0	0.0	0.901	>0.05
	No	2	100.0	5	83.3	42	80.8			26	78.8	20	83.3	3	100.0		
Previous surgical tumor removal	Yes	0	0.0	1	16.7	6	11.5	0.411	>0.05	5	15.2	2	8.3	0	0.0	1.044	>0.05
	No	2	100.0	5	83.3	46	88.5			28	84.8	22	91.7	3	100.0		
Family history of cancer	Yes	2	100.0	4	66.7	10	19.2	11.22	>0.05	9	27.3	6	25.0	1	33.3	0.108	>0.05
	No	0	0.0	2	33.3	42	80.8			24	72.7	18	75.0	2	66.7		

$X^{2:}$ Chi Square Test. No significant at p >0.05. Statistically significant at p<0.05.*

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

Socio-demographic data of the studied women		Total level of body image Pre-program						X2	P-Value	Total level of body image Post-program						X2	P-Value
		Good (n=2)		Average (n=4)		Poor (n=54)				Good (n=34)		Average (n=24)		Poor (n=2)			
		No.	%	No.	%	No.	%			No.	%	No.	%	No.	%		
Age (year)	18 - < 25 years	1	50.0	0	0.0	2	3.7	**11.96**	**<0.05***	3	8.8	0	0.0	0	0.0	**10.65**	**<0.05***
	25 - < 35 years	1	50.0	1	25.0	10	18.5			6	17.7	6	25.0	0	0.0		
	35 - < 45 years	0	0.0	2	50.0	33	61.1			19	55.9	14	58.3	2	100.0		
	45 - < 55 years	0	0.0	1	25.0	6	11.1			6	17.6	1	4.2	0	0.0		
	55- ≤ 65 years	0	0.0	0	0.0	3	5.6			0	0.0	3	12.5	0	0.0		
Marital status	Single	1	50.0	0	0.0	4	7.4	**5.002**	**<0.05***	4	11.8	1	4.2	0	0.0	**4.282**	**<0.05***
	Married	1	50.0	3	75.0	36	66.7			22	64.7	16	66.7	2	100.0		
	Widowed	0	0.0	1	25.0	12	22.2			8	23.5	5	20.8	0	0.0		
	Divorced	0	0.0	0	0.0	2	3.7			0	0.0	2	8.3	0	0.0		
Education level	Read and writes	0	0.0	0	0.0	1	1.9	1.524	>0.05	1	3.0	0	0.0	0	0.0	9.863	>0.05
	Primary education	0	0.0	0	0.0	2	3.7			0	0.0	2	8.3	0	0.0		
	Preparatory education	0	0.0	1	25.0	14	25.9			5	14.7	9	37.5	1	50.0		
	Secondary education (diplome)	1	50.0	2	50.0	18	33.3			15	44.1	6	25.0	0	0.0		
	University education	1	50.0	1	25.0	19	35.2			13	38.2	7	29.2	1	50.0		
Occupation	Working	0	0.0	1	25.0	22	40.7	1.676	>0.05	13	38.2	9	37.5	1	50.0	0.122	>0.05
	Not working	2	100.0	3	75.0	32	59.3			21	61.8	15	62.5	1	50.0		
Residence	Rural	1	50.0	3	75.0	33	61.1	0.423	>0.05	20	58.8	16	66.7	1	50.0	0.458	>0.05
	Urban	1	50.0	1	25.0	21	38.9			14	41.2	8	33.3	1	50.0		
Monthly income	Enough	1	50.0	1	25.0	5	9.3	5.619	>0.05	4	11.8	3	12.5	0	0.0	1.983	>0.05
	Enough and can be saved	0	0.0	0	0.0	18	33.3			12	35.3	5	20.8	1	50.0		
	Not enough	1	50.0	3	75.0	31	57.4			18	52.9	16	66.7	1	50.0		
Number of family members	2-4 members	1	50.0	2	50.0	14	25.9	2.246	>0.05	10	29.4	6	25.0	1	50.0	2.472	>0.05
	5-7 members	1	50.0	2	50.0	30	55.6			20	58.8	12	50.0	1	50.0		
	More than 7 members	0	0.0	0	0.0	10	18.5			4	11.8	6	25.0	0	0.0		

$X^{2:}$ Chi Square Test. No significant at p >0.05. Statistically significant at p<0.05.*

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

Clinical data of the studied women		Total level of body-image Pre-Program						X2	P-Value	Total level of body-image Post-Program						X2	P-Value
		Good (n=2)		Average (n=4)		Poor (n=54)				Good (n=34)		Average (n=24)		Poor (n=2)			
		No.	%	No.	%	No.	%			No.	%	No.	%	No.	%		
Duration of breast cancer	< 6 months	2	100.0	0	0.0	0	0.0	**7.109**	**<0.05***	2	5.9	0	0.0	0	0.0	**3.21**	**<0.05***
	6 months - <1 year	0	0.0	0	0.0	11	20.4			6	17.6	5	20.8	0	0.0		
	1 year - < 2 years	0	0.0	1	25.0	12	22.2			7	20.6	5	20.8	1	50.0		
	2 years- < 3years	0	0.0	2	50.0	13	24.1			8	23.5	7	29.2	0	0.0		
	3 years or more	0	0.0	1	25.0	18	33.3			11	32.4	7	29.2	1	50.0		
Disease stage	First stage	1	50.0	3	75.0	2	3.7	**9.283**	**<0.05***	3	8.8	2	8.3	1	50.0	**5.212**	**<0.05***
	Second stage	1	50.0	1	25.0	23	42.6			13	38.2	12	50.0	0	0.0		
	Third stage	0	0.0	0	0.0	11	20.4			7	20.6	4	16.7	0	0.0		
	Fourth stage	0	0.0	0	0.0	18	33.3			11	32.4	6	25.0	1	50.0		
Type of mastectomy performed	Lumpectomy	2	100.0	2	50.0	7	13.0	**10.27**	**<0.05***	5	14.7	5	20.8	1	50.0	**3.221**	**<0.05***
	Total mastectomy of one breast	0	0.0	2	50.0	16	29.6			11	32.4	7	29.2	0	0.0		
	Total mastectomy of two breasts	0	0.0	0	0.0	12	22.2			7	20.6	4	16.7	1	50.0		
	Modified radical mastectomy	0	0.0	0	0.0	19				11	32.4	8	33.3	0	0.0		
Previous admission to hospital	Yes	1	50.0	4	100.0	43	79.6	2.130	>0.05	27	79.4	19	79.2	2	100.0	0.518	>0.05
	No	1	50.0	0	0.0	11	20.4			7	20.6	5	20.8	0	0.0		
Suffering from any other type of cancer	Yes	0	0.0	1	25.0	10	18.5	0.569	>0.05	6	17.6	5	20.8	0	0.0	0.560	>0.05
	No	2	100.0	3	75.0	44	81.5			28	82.4	19	79.2	2	100.0		
Previous surgical tumor removal	Yes	0	0.0	1	25.0	6	11.1	0.970	>0.05	4	11.8	3	12.5	0	0.0	0.281	>0.05
	No	2	100.0	3	75.0	48	88.9			30	88.2	21	87.5	2	100.0		
Family history of cancer	Yes	2	100.0	3	75.0	43	79.6	11.22	>0.05	9	26.5	6	25.0	1	50.0	0.592	>0.05
	No	0	0.0	1	25.0	11	20.4			25	73.5	18	75.0	1	50.0		

$X^{2:}$ Chi Square Test. No significant at p >0.05. Statistically significant at p<0.05.

Table (6): Correlation between mean score of the total self-compassion and mean score of the total body-image among the studied women with mastectomy pre and post program implementation **(n=60)**.

Variables		Total body image	
		Pre-Program	Post-Program
Total self-compassion	r	0.800	0.829
	p-value	0.000**	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 ±SD of age was 38.14 ± 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 **pre-program** implementation, 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.

In addition, these present results showed that more than half of the studied women with mastectomy had high level of self-compassion **post-program** implementation. the researcher attributed this result due to program sessions with the main aim of the program is to increase levels of psychological flexibility and made women more likely to accept their disease, limitations and enable to distance from negative self-concept and developing positive self-concept beyond their deficiencies and diseases. These flexible features help women to behave kindly with self instead of feeling shame, sadness, allow women to view body appearance defects and social esthetic standards objectively with balanced awareness, accept imperfect existence, and avoidance of negative self-evaluation and emotions as well, they became warmer towards themselves by accepting all imperfections and practicing kindness toward the own body, decreasing self-judgment in themselves. This opinion was supported by ***Pepe & Valentina, (2023)*** who conduct a study entitled **(Self-compassion in women with breast cancer)** and stated that, self-compassion cultivation in turn results in a low level of bodily shame and fear of others' devaluations could improve social relationships.

Regarding the total level of body-image among the studied women with mastectomy **pre-program** implementation, this result clarified that, the majority of the studied women had poor level of body-image. From the researcher point of view before program implementation, these results could be due to, cognitive fusion and believability of negative thoughts associated with body after mastectomy. In addition, felling 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.

The result of the current study illustrated that, there was increase in the level of good body-image among more than half of the studied women **post-program** implementation. The researcher attributed these results due to, the effect of program

session which focused on increasing and cognitive defusion which help women to experience an improved ability to be open and aware of unwanted thoughts, feelings and experiences. Also, studied women with mastectomy pre and post the program reduced experiential avoidance and cognitive entanglement with dysfunctional rules until it reconnected with meaningful values and take committed action that ended by increasing psychological flexibility.

These results was agreed with the study of ***Sakai et al., (2022)*** that entitle **(Acceptance and commitment therapy in the trans diagnostic treatment of a breast cancer survivor: A case study)** and reported that, about more than half of the studied women with mastectomy had good body-image after acceptance and commitment therapy and they were able to practice new ways of relating to shame and anxiety, and to organize what she wanted to value in her future life as a result of replacing negative thoughts by positive ones.

Other studies were consistent with these results post-program implementation, as ***Pasyar et al., (2023)*** who conduct a study that entitled **(Comparing the effectiveness of acceptance and commitment therapy and mindfulness-based stress reduction program on negative feedback, health anxiety, psychological well-being, and body image in women undergoing mastectomy)** and stated that, more than half of women with mastectomy had good body-image after application of acceptance and commitment therapy. In addition, this result was parallel with a study done by ***Tunc et al., (2023)*** which entitle **(The effect of acceptance and commitment therapy–based psycho-education on body image, quality of sexual life, and dyadic adjustment of women after breast cancer surgery)** and reflected that, body-image score had been improved post-test than pre-test after the application of acceptance and commitment therapy. As well as, ***Ghasemi, & Jabalameli, (2020)*** who conduct a study entitled **(Effectiveness of acceptance and commitment therapy on body image in women with breast cancer after mastectomy surgery)** and report that, acceptance and commitment therapy was effective in the improvement of body image in studied women post-program implementation than before.

As regard to the relationship between total level of self-compassion of the studied women with mastectomy and their socio-demographic data pre and post program implementation, these results revealed that, there was a statistically significant relation between total level of women's self-compassion and their age pre and post program implementation. **Before program** implementation, 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. **Post-program** implementation from researcher's point of view, this might be due to the effect of program sessions which increase the level of hope in women with mastectomy which help them to have a positive-image for future, set values and take committed action that help them to go forward in spite of their deficiencies at this age.

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 pre and post program implementation. **Before program** implementation, 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.

After program implementation, the higher level of self-compassion was between married women. The researcher attributed these results due to, training sessions on self as context which help women to develop strong, self-satisfied personality and the instructions provided by the researcher to strengthen and improve their values which lead them how to cope with their husband and increase trust in herself. This opinion was supported by ***Ghorbani et al., (2021)*** who done a study entitled **(Efficacy of acceptance and commitment therapy (ACT) on depression, pain acceptance, and psychological flexibility in married women with breast cancer: a pre- and post-test clinical trial)** and reported that, the fundamental process in ACT is clarifying the values of each individual as because cancer patients face life-threatening diseases, they may often become unaware of their values. Therefore, helping individuals to detect their values and precious areas in life provides a motive to move on and seriously deal with cancer diagnosis and treatment.

Concerning relationship between total level of self-compassion and clinical data of the studied women with mastectomy pre and post program implementation, 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 pre and post program implementation. **Before program** implementation, 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.

After program implementation, from researcher's point of view, this might due to practicing of loving-kindness meditation and mindfulness skills sessions by recognizing suffering and uncomfortable feelings related to the body which cause change in BI and led to the mental representations of a new body. This result was in the same line with ***Kearney & Hicks (2017)*** who conduct a study entitled **(Self-compassion and breast cancer in 23 cancer respondents: Is the way you relate to yourself a factor in disease onset and progress?)** and reported that, there was a statistically significant relation between clinical data (duration of breast cancer, disease stage and type of mastectomy performed) and total level of self-compassion among his studied sample.

Regarding, the relationship between total level of body-image of the studied women with mastectomy and their socio-demographic data pre and post program implementation, these results revealed that, there was a statistically

significant relation between total level of women's body-image and age pre and post program implementation. **Before program** implementation, 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.

After program implementation the researcher's attributed this result due to, the effect of session based on accepting negative thoughts instead of it's avoidance which associated with their body that helped women to accept herself as she not the only one to had mastectomy at this age. Also, sessions help women to undo negative thoughts related to body such as ugly-looking, losing feminine identity at young age and that they are not real or realistic and see them as just ideas that end in achieving psychological stability and trust in self with focusing on future goals.

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 ≥ 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 pre and post program implementation. **Before program** implementation, 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 feminism 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.

After program implementation, the average level of body-image was between married women. The researcher attributed this result due to, the effect of acceptance and commitment training program as the women could accept and cope with their new body-image and avoid the trauma of mirror view and internalized shyness from her husband, in addition to, she could overcome it and increase sexual self-esteem and this opinion was supported by ***Abdollahzadeh & Kabirinasa, (2019)*** who conduct a study entitled **(The effectiveness of acceptance and commitment therapy on internalized shame and sexual self-esteem of women with breast cancer after mastectomy surgery)** and represented that, therapy based on acceptance and commitment has caused to increase body-image, self-esteem and reduce internalized shame.

This result went in the same line with the study of ***Lekeka, (2023)*** which entitled **(Breast cancer treatment (mastectomy experiences) may initiate individuation process that**

redefines identities: A systematic review) and explained that, there was a significant relation between body-image and marital status and women who undergo mastectomy report changes in their sexuality, anxiety about potential loss of marital support, changes in their mothering and caregiving roles, and loss of confidence. Also, this result was supported with ***Tarawneh, (2024)*** who conduct a study entitled ***(*Body image and its relationship to marital adjustment for a sample of married women after mastectomy)** and stated that, there was a significant statistical relationship between body image and marital status of women with mastectomy.

In addition to, this result went in agreement with the study of ***Ghasemi & Jabalameli, (2020)*** that entitled **(Effectiveness of acceptance and commitment therapy on body image in women with breast cancer after mastectomy surgery)** and reported that there was a statistically significant relation between body-image and marital status pre and post program implementation.

Regarding relationship between total level of body-image and clinical data of the studied women with mastectomy pre and post program implementation, 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 pre and post program implementation. From researcher's point of view **before program** implementation, 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.

Concerning **post program** implementation, the average 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, and the researcher attributed these results due to, the effect of program session that aimed at accepting women's new body after mastectomy and their long term-suffering and also, sessions based on values clarification help women to have deeper sense of purpose and meaning as an ongoing process of behavior with this disease.

This present result was consistent with ***Thakuret 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, ***Phoosuwan & 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 pre and post program implementation, 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 pre and post program implementation. **Before program** implementation, the women with mastectomy who had low level of self-compassion had poor level of body-image. 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.

In addition, **after program** implementation, the researcher attributed these results due to the effect of acceptance and commitment training program which focused on accepting self and body-image after mastectomy through decreasing cognitive fusion with negative thoughts associated with body-image. In addition to, viewing her identity as separate from the content of her painful experience value clarification and taking committed action toward these values. Furthermore, session based on improving self-compassion and mindfulness help in improving body-image due to the self-soothing effects of self-compassion which shift one's affective state from negative to positive and increase the feeling of security and it may alleviate negative outcomes associated with maladaptive perfectionism and improve body-image. This opinion is supported with ***(Sebri et al., 2023)***.

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 acceptance and commitment training program was very effective in order to promote empowerment of women in coping with mastectomy crisis and it can reduce it's psychological effects and not only provides the possibility to accept emotions, but also, lead women to commitment to action based on values. So, we can be said that, acceptance and commitment training program had a positive effect on improving self- compassion and body-image among women with mastectomy and these results were consistent with the study hypothesis.

Conclusion:

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

The acceptance and commitment training program had a positive effect on self-compassion and body-image among women with mastectomy as more than half of the studied women with mastectomy had high level of self-compassion and good level of body-image post-program implementation than before. Also, 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 pre and post program implementation.

Recommendations:

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

- Generalization of acceptance and commitment training program for all women with mastectomy in all hospital to improve their self-compassion and hence their body-image.
- Conducting structured training programs through periodical workshops for nurses dealing with breast cancer women, with the focus on improving body-image and self-compassion.
- Replication of the study using a larger sample in different correlational settings to generalize the result.

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