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Effectiveness of Nursing Intervention Program on Post Traumatic Stress Disorders and Coping Strategies among Women with Breast Cancer

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Abstract: **Breast cancer puts the patient and their family beneath a great deal of pressure. Women's response to stress seems to be different but it includes a series of psychological, emotional and behavioral reactions. The purpose of this study was to evaluate the effectiveness of the nursing intervention on post-traumatic stress and coping strategies among women with breast cancer. This study was carried out in the Surgical and Oncology Department at University Hospital, Menoufia Governorate. Quasi-experimental (study and control group pre/ posttest) research design was used to achieve the purpose of the study. The sample size was 50 women with breast cancer divided into two equal groups (study and control group). Three tools were used for data collection, which includes socio-demographic and medical history data sheet as well as post-traumatic stress scale and coping strategies scale. The results revealed that there were statistical differences between the study and control group regarding the level of post-traumatic stress and coping strategies post-intervention. Conclusion, nursing intervention is the key element for reducing post-traumatic stress disorder and improving the coping patterns of women with breast cancer. Therefore, it was recommended that nurses should give more attention to the psychological aspects of breast cancer women in all stages of treatment and medical intervention to decrease emotional distress and prevent developing a psychiatric disorder.**

Keywords: **nursing intervention, post-traumatic stress disorder, and coping strategies.**

1. INTRODUCTION

Breast cancer is the most common malignancy and the second leading cause of cancer deaths among women. Breast cancer kills about forty thousand women each year (Abdalla,A, 2011) [1]. A diagnosis of breast cancer regardless of the stage can be stressful, influencing multiple spheres of life, disrupting physical status, emotional and spiritual well-being and personal relationships for the patient and family (Guex, 2005). [2]

Breast cancer puts the patient and their family under a lot of pressure. Women's response to stress seems to be different but it includes a series of psychological, emotional and behavioral reactions. Some of these responses are understood to be involuntary reactions due to stress, while other responses are voluntary and conscious efforts for overcoming stress. These reactions provide the fight or flight situation. When a person is unable to deal with stress, they enter a new stage, which is called distress **(DeSantis, 2011).** [3].

Women with breast cancer regularly go through the experience of loss of femininity and can also experience sexual troubles to therapy side effects. Most research paint a distressing image of breast cancer's sexual impact: It makes women experience much less beautiful and reduces their libido and sexual satisfaction, seventy percentage of women report

intercourse troubles after treatment, breast removal (mastectomy) makes women experience disfigured, which kills libido, two breast cancer cure causes "long-term" sexual harm. Any cancer can impair sexuality (Michael Castleman, 2014). [4].

The breast cancer patients commonly experience a normal stress response characterized by shock, numbness, and denial, and often experience despair and hopelessness. One of the psychological reactions to breast cancer and its treatment is the development of posttraumatic stress disorder. PTSD was expanded to include being diagnosed with a life-threatening illness. For the family, a cancer diagnosis for a family member creates multiple challenges, including physical demand for practical caregiving, emotional strain, change in role and responsibilities, adjustment to work and career schedules (Hanoch, 2008). [5].

Breast cancer women often employ a number of cognitive and behavioral strategies to cope with the various perceived stressful situations they experience (Hanoch, 2008).[5]. Coping behaviors include positive problem solving; escape/avoidance and seeking social support (Rosberger, 2010)[6]. Women with breast cancer need supportive care to alleviate psychological distress and assist them to adapt to the situation. Supportive care is an attitude that facilitates interpersonal relationships and the individual's physical and psychosocial comfort (Classen et al., 2008).[7].

There are different support needs experienced with individuals with breast cancer, like physical, informational, emotional, practical/tangible support, which is influenced by personal, environmental and social factors. Informational care refers to advice in dealing with the problem, emotional support contributes to the feeling, and one is given, cared for and loved. Tangible support is a direct aid, such as taking care of a critically ill patient (Liao et al., 2010) [8].

The nurse playing an important role to reduce the perception of illness severity, allow psychological adjustment, and quality of life to be maintained. The nursing interventions should be provided with a clear structure to make the nursing care effective and to facilitate descriptions of outcomes. Nursing interventions of female breast cancer patients should focus on education, information, and communication; symptom management and the importance of multidisciplinary teamwork; psychological support and coordination of care **(Kearney, 2006)** [9].

2. THE SIGNIFICANCE OF THE STUDY

Breast cancer is the most common type of cancer in women both in the developed and less developed countries. It is estimated that worldwide over 508 000 women died in 2011, due to breast cancer incidence rates vary from 90.1 per 100,000 women in America, 89.7 per 100,000 women in Europe, 30 per 100,000 women in Asia and19.3 per 100,000 women in Africa (Ferlay J et al., 2013).[10] Breast cancer is estimated to be the most common female cancer in Egypt about 24.2 per 100,000 women **(Ibrahim et al., 2014)** [11].

Receiving a diagnosis of breast cancer is a life-altering event that can bring with it a great amount of stress. There have been estimates suggesting that up to 35% of women with breast cancer will experience symptoms of posttraumatic stress disorder (PTSD), such as intrusive thoughts and avoidance, at some point during the course of treatment of the disease (Michael Castleman, 2014). [4]. Prior studies have found that, during stressful situations, concurrent and flexible use of multiple coping behaviors contribute to more successful psychosocial adaptation (Roussi, 2008). [12] . Hence, this study carried out to study the effect of the nursing intervention on reducing traumatic stress and improvement of coping strategies among women with breast cancer.

Theoretical and Operational definition

Coping: coping can be defined as an effort to manage and overcome physical and psychological change as a result of the diagnosis of breast cancer and its treatment. In this study can be operationally defined by the obtained mean score of coping strategies measured by Ibrahim, (1994) [11]

Post-traumatic Stress Disorder (PTSD**)**: is a disorder that affects people following the diagnosis of breast cancer and its treatment. In this study can be operationally defined by the obtained mean score of Post-traumatic Stress Disorder symptoms measured by Weathers et al., (1993) [14]

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3. SUBJECTS AND METHOD

3.1. The Purpose of the Study

The purpose of this study is to evaluate the effectiveness of the nursing intervention program on posttraumatic stress disorder and coping strategies among women with breast cancer.

3.2. Research Design:

A quasi-experimental two group (study and control group pre/ posttest) research design was used to achieve the purpose of the study.

3.3. Research Hypothesis:

The women who will participate in the nursing intervention program (study group) will have a lower mean score of post-traumatic stress disorder and the higher mean score of coping strategies than women who don't receive the intervention program (control group).

3.4. Research Setting

The study was conducted in the Surgical and Oncology Department at University Hospital, Menoufia Governorate, Egypt.

3.5. Subjects

Based on the past review of the Literature (Elsheshtawy et al.2014) [15] that examine 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 sample size was conducted to be 50 breast cancer women.

A convenience sample of 50 women with breast cancer from the above setting was selected and divided into two equal groups; 25 for each group: study group (1) who received nursing intervention program and control group (2) who were exposed to routine hospital care. Both groups fulfill the following inclusion and exclusion criteria:

Inclusion criteria include:

- Women who were able to communicate verbally.
- Aware of their diagnosis.
- Accepted to participate in the study

Exclusion criteria include:

- Have metastatic disease.
- Have other chronic physical condition.
- Have a history of psychiatric or neurological disorder

3.6. Instruments of the Study

Three tools were used in this study:

Tool (1): -A constructed interview questionnaire. This questionnaire was developed by the researcher to Assesses personal data about woman age, education, marital status, and occupation.

Tool (2): - post-traumatic stress disorder scale: This scale was originally developed and validated by [14] to assess stressful life experience. It was translated into Arabic by the researcher and tested for its validity by a panel of experts. It consists of 16 items. The respondent's answers were measured using 5-point rating scale ranging from 1 to 5 in which 1 = Not at all, 2 = A little bit, 3 = Moderate, 4 = Quite abet and 5 = extremely.

Scoring system: -

Normal (16-41)
Mild stress (42-53)
Moderate stress (54-64)
Severe stress (65-80)

Tool three: - Adaptive Coping Strategies questionnaire

This adaptive Coping Strategies questionnaire was developed by Roussi,(2008) [13]to measure methods of coping strategies. It was translated into Arabic and modified by the researcher. It consisted of 36-item covers two subscale, problem-focused coping and emotion-focused coping. Problem-focused coping consists of 16 items as seeking- out information and social support consists of (3items), positive reinterpretation consists of (4items), exert of restraining consists of (3itmes), denial consists of (3itmes) and active coping consists of (3itmes). Emotion-focused coping, consists of (20 items) as Helplessness consists of (4items), mental disengagement (3items), wishful thinking consists of (4items), turning to religion consists of (3items), emotional discharge consist of (3items) and acceptance consists of (3 items).The respondents' answers were measured using 4 points rating scale ranging from O to 3 in which O = don't agree, 1 = some agree, 2 = generally agree and 3 = totally agree.

Scoring system:

I-Problem focused coping:

- Poor (0-15)
- Mild (16-28)
- Moderate (29-36)
- High (37-48)

II-Emotion focused coping:

- Poor (0-23)
- Mild (24-35)
- Moderate (36-45)
- High (46-60)

Total coping strategies scale scores:

- Poor (0-43)
- Mild (44-64)
- Moderate (65-81)
- High (82-108)

3.6.1 Content validity and reliability:

Validity: -The validity of the instruments was ascertained by a group of five experts who reviewed the tools for content and internal validity. **Reliability: -** Test-retest reliability was applied by the researcher for testing the internal consistency of the tools. It was done through the administration of the same tools to the same participants under the similar condition on two or more occasions. The tools proved that it was strongly reliable .87 and .82 for post-traumatic stress disorder and coping strategies respectively

3.6.2. Data Collection Methods

Approval: - A formal letter from the Faculty of Nursing, Menoufia University, was submitted to Menoufia University Hospital. An official permission was obtained to carry out the study from the directors of the above-mentioned settings. **Ethical considerations:** Informed consent was obtained from all subjects after providing an appropriate explanation about the purpose of the study and nature of the research. The confidentiality and anonymity of the individual responses, volunteer participation and right to refuse to participate in the study were emphasized. **A pilot study: -** A pilot study was conducted on five women to test the clarity, applicability of the instruments and to estimate the time needed for data collection. On the basis of the pilot results, the necessary modifications were done accordingly.

3.7. The procedure of Data Collection.

The questionnaire used in the study was administered by the researchers. The patients were briefed about the purpose of the study, encouraged to participate and motivated to express their feelings. The patients give fully informed verbal consent to participate. It was emphasized that all data collected was strictly confidential and the data would be used for scientific purposes only. All subjects who were supposed to be meeting the inclusion criteria were included in the study, then divided into two equal groups' one control group and the other was the study group. The study group was divided into (10) groups every group ranged from (2 to 3) patients, every group attended (4) nursing intervention session within two days\week from 12 AM to 2 PM The study was carried out in the period started from April 2015 and completed by November 2015. The implementation of the study passed into three phases (pre-assessment phase, implementation phase, and post-assessment phase)

3.7.1. Pre-assessment phase: -

A comfortable, private place was chosen for the interviewers. Orientation was done about the purpose of the study and content of the study. Each woman was individually interviewed where pre-assessment was done using structured interviewing questionnaire, posttraumatic stress scale, and coping scale.

3.7.2 Implementation phase: -

The nursing intervention program has a general objective and divided into 4 sessions. Each session lasted for one hour and has a set of specific objectives. This was achieved through several teaching methods as brainstorming, lecture, group discussion; role-playing, data show, picture, posters, and booklet were used as media. At the end of each session summary, feedback, further clarification was done for vague items and homework activity for the following session.

The sessions of intervention were:

Session 1: This session was concerned with the women's knowledge about the cancer breast.

Session 2: This session was related to the method of breast self-examination and lifestyle modification.

Session 3: This session was focused on emotional expression and social support to decrease breast cancer-related stress.

Session 4: This session was focused on the application of stress management techniques to decrease breast cancer-related stress.

3.7.3. The evaluating phase:

During this phase, the participant was encouraged to ask any questions or demand clarifications she needed, and the post-test was given to them (Posttraumatic stress scale and coping scale).

3.8 Statistical analysis: -

The collected data were organized, tabulated and statistically analyzed using SPSS software (Statistical Package for the Social Sciences, version 16, SPSS Inc. Chicago, IL, USA). For quantitative data, the range, mean and standard deviation were calculated. For qualitative data, a comparison between two groups was done using Chi-square test (χ^2). For the comparison between more than two means of parametric data, F value of ANOVA test was calculated for parametric data, where Scheffe test was performed to compare between every two means where F value was significant. Correlation between the variables was evaluated using Pearson's correlation coefficient (r). Significance was adopted at $p<0.05$ for interpretation of results of tests of significance.

4. RESULTS

Table (1): Showed the distribution of the study sample regarding the Sociodemographic Data: This table reveals that the majority of the studied sample is between 45 to 55 years old on both groups. Near to two thirds (64%) of both groups are housewife, more than half of the study group and near to half of the control group live in rural area. The higher percentage of both groups is married. There is no statistically significant difference between control and study group regarding all socio-demographic data.

Figure (1): This figure reveals that there is no statistically significant difference between the mean score of posttraumatic stress disorder of control group and study group pre\program, while there is a highly statistically significant difference between the mean score of control group (62.32) and mean score of study group (48.08) post-program at 0.001. There is a highly significant reduction of the mean score of posttraumatic stress disorder from (60.68) pre\program to (48.08) post-program among the study group.

Table (2): show the Mean scores of problem-focused coping scale items of the studied women with breast cancer (control group and study group (pre and post-intervention). This table reveals that there is no statistically significant difference between the control group and study group pre-intervention program regarding mean score of all items of problem-focused coping. While there is a highly statistically significant difference between the control group and study group post-intervention program regarding mean score of all items of problem-focused coping except denial. There is a highly significant increase in all items of problem-focused coping post-intervention program than pre-intervention among the study group**.**

Table (3): show the mean scores of emotion-focused coping scale items of the studied women with breast cancer (control group and study group (pre and post-intervention. This table reveals that there is no statistically significant difference between the control group and study group pre-intervention program regarding mean score of all items of emotion-focused coping except helplessness. While there is a highly statistically significant difference between the control group and study group post-intervention program regarding mean score of all items of problem-focused coping. There is a highly significant increase in the mean score of all items of the emotion-focused coping post-intervention program than pre-intervention among the study group.

Figure (2): This figure reveals that there is no statistically significant difference between the mean score of problem-focused coping of control group and study group pre\program, while there is a highly statistically significant difference between the mean score of control group (30.36) and mean score of study group (39.88) post-program at 0.001. There is a highly significant increase in the mean score of problem-focused coping from (29.04) pre\program to (39.88) post-program among the study group

Figure (3): This figure reveals that there is no statistically significant difference between the mean score of emotion-focused coping of control group and study group pre\program, while there is a highly statistically significant difference between the mean score of control group (43.76) and mean score of study group (58.12) post-program at 0.001. There is a highly significant increase in the mean score of emotion focused coping from (43) pre\program to (58.12) post program among the study group

Figure (4): This figure reveals that there is no statistically significant difference between the mean score of total coping of control group and study group pre\program, while there is a highly statistically significant difference between the mean score of control group (74.12) and mean score of study group (98.00) post program at 0.001. There is a highly significant increase in the mean score of total coping from (72.4) pre\program to (98.00) post program among the study group.

5. DISCUSSION

A breast cancer diagnosis can be a frightening and life-changing event. The diagnosis, treatment and side effects have an impact on psychosocial and physical functioning. The breast cancer patient must find ways to cope with fear, anxiety, and depression related to breast cancer. Coping with these changes and threats to well-being becomes of utmost importance. (Tung, H.H., Hunter, A. and Wei, J., 2008).[16].

The finding of the current study revealed that the ages of most of the studied sample ranged from 45 to 55 years. This could be due to hormonal changes or could be due to a lack of knowledge where women do not know how to perform breast self-examination for discovering any abnormality early. This finding is in line with Abd- Elalem, (2008) [17], who reported that the highest peak age of breast cancer was ranged between 45 to less than 55 years of old. In addition, this study agrees with Abdel- Aziz, S. (2008). [18] who reported that breast cancer is the most common cancer among women with an age adjusting rate of 49.6 years. This result also was in agreement with another study done by Faria, L. *(2010):* [19] who considered that breast Cancer to be rare prior to the age of 35.

On the contrary Amberley & Buxton, (2011) [20] noted that the highest incidence of breast cancer occurs in women between 50 to 78 years of age. In contrast, a study carried out by Sharif, F et al.(2010)[21], who emphasized that most women diagnosed with breast cancer are between 25 to 40 years of age and this rate drop after the age of 44.

Concerning residence, the result of the present study revealed that more than half of both groups were lived in a rural area. This could be due to women in the rural area have a greater desire to gain heath related information about cancer breast. This result is in accordance with Sallam.S. (2012) [22], who reported that the majority of the patients in their studies were from rural area. This finding is also consistent with Santre, M., Rathod, J., & Maidapwad, S. (2014) [23] , who found that more than half of the participants were from rural backgrounds.

About marital status, most studied samples were married. This result is in line with Hussien, SH. (2007). [24] who reported that most breast cancer women were married. In addition, in line with Alhamss, A. *(*2014) [25] who reported that married women were the most (three fourths) of clients and more likely to cope compared with divorced or widowed.

Moreover, the finding of this study approved that the majority of the sample was the house wife. This is supported by Sallam.S.2012 [22] who stressed that the highest percentage of the patient was the housewife. Also consistent with the study done by Alhamss, A. *(2014)* [25] who showed that a majority of his studied sample of women with breast cancer was not working. This is to say; employee women are able to have an active part in seeking information and decision making about treatment and gain more social support than those who passively submit to medical recommendation.

As regards to educational status, it was found that the majority of the participants were in an intermediate level of education, which facilitate easily interaction, acceptance, and understanding with the intervention program, which was reflected immediately post intervention. As they had a strong desire to gain knowledge and learn how to cope. This is supported by Mahmoud, M., Sobh, A., EL-Habashi, F. & Ghoneim, A.(2005)[26] who reported that the educational level is considered a personal resource that influences the individual's ability to cope. Also, in accordance with the study done by Ögce, F., & Özkan, S. (2008). [27] which showed that half of the study sample had intermediate level education.

The current study showed that breast cancer women experienced a significant level of post-traumatic stress. This could be due to lack of knowledge about the disease and its treatment, anxiety regarding the intervention procedures, the knowledge which patients gather from various sources and finally the thought regarding the outcome of the treatment or surgery all this leads to distress or may be due to poor coping skills of the patient. This finding is in an agreement with Sharma, A., & Zhang, J. (2015): [28], who stated that nearly half of women with early breast cancer had posttraumatic stress disorder, depression, anxiety or both in the year after diagnosis. Also Lackey, N.R., Gates, M.F. ad Brown, G (2001). [29], who indicate that cancer diagnosis triggers a wide range of cancer-specific stress and mood disturbance in women shortly after diagnosis of breast cancer. The current study is consistent also with Pam Stephan Xm, (2012) [30] who demonstrate that breast cancer women experienced high levels of related stress, uncertainty, anxiety, fear and mood disturbance.

The current study reveals that there is a statistically significant improvement of the mean score of the study group compared to the control group post intervention program. Also, a highly significant reduction of the mean score of posttraumatic stress disorder post program than before program among the study group. This indicates the effectiveness of the program session which was within the need and interest of the participant. It can be explained that the intervention program helps the women to identify conditions or situations that affect their emotional status and analyze their thoughts and beliefs about them, as being rational or irrational. Then, replace these with accurate, rational, constructive thoughts. In addition, it helps the women to accept themselves. This leads to experiencing positive emotions and finally to constructive adaptation to the state of being ill. The studied women reported that the psychological nursing intervention provided them the opportunity to normalize and ventilate their feeling, understanding psychological consequence of cancer and the ways to deal effectively with their feeling and cope with the problem associated with the disease.

The current study concluded that the nursing intervention program affects the level of post-traumatic stress of women with breast cancer and achieves more coping strategies than the women in the control group. This finding is consistent with Vos, P. J.et al.(2006) [31] who examined the effect of time of enrollment in a group psychosocial intervention for adjustment in women with early stage breast cancer. They found that women who began attending the group within 4 months of diagnosis demonstrated better psychological adjustment than those that joined the group later. Women in both groups improved in terms of distress levels, body image, and level of participation in recreational activities.

According to Shaw, B.,et al. (2007) [32] who conducted a study on the religious expression within internet support groups for women with breast cancer and demonstrated that increased religious expression was related to lower levels of negative emotions and increased health self-efficacy and functional well-being. At the same time Kissane, D. W.et al.(2008).[33] conducted a randomized controlled trial involving cognitive-existential group therapy for women with primary breast cancer, they reported that women who received group therapy experienced decreased anxiety, improved family functioning, greater satisfaction with therapy, increased coping, self-growth, and knowledge pertaining to cancer in comparison to the control group.

In the current study, the higher percentage of breast cancer patients was using religion and acceptance coping strategy. Religion is seen as one of the emotion-focused coping strategies involving purely cognitive activities that do not directly alter the actual relationship with the environment but do alter the way this relationship is cognized. This finding is in line with Tung, H.H., Hunter, A. and Wei, J., 2008) [16] who reported that Subjects believed that God had chosen this path for them and now they had no choice except to walk that path, women discussed how their faith in God helped alleviate fears about future uncertainties, disease, and death, by "leaving it in God's hands."

The finding was consistent with prior studies of cancer patients by True G, et.al (2005) [34] showed that the majority of strategies used by Iranian women to cope with breast cancer were being positive on religious faith. This study is in agreement with that reported by Doumit MA, et.al (2010) [35] that women accept their disease because when something is from God, we cannot change it, we must only accept it.

Regarding acceptance, the current result showed Acceptance was one of the most used coping strategies among the study group. Acceptance means compliance with the reality of a stressful situation, learning to live with it, accepting its implications and its irreversible course. This suggests that Egyptian women with breast cancer tend not to blame themselves for the disease or think that it is their sole responsibility to address the problem. The planning that is necessary to get through the cancer experience and adaptation to life after cancer may have enhanced this form of coping. Similarly, the powerlessness and lack of control that the cancer experience often engenders may also have promoted a stronger sense of acceptance as a coping strategy. This result is consistent with the study done by Carver CS. (2007) [36] who found acceptance to be one of the most often used coping strategies along with positive reframing and the use of religion.

The current study emphasized that there is no statistically significant change in the study group pre and post intervention regarding denial and helplessness. Denial is seen as a form of avoiding all thoughts about the possible devastating effects of cancer; it was used as a coping strategy by a group of patients. This result in the line with Elsheshtawy E.etal.(2014) [15] the result conducted to investigate Coping Strategies in Egyptian Ladies with Breast Cancer at Mansoura University who reported that denial guards a woman with breast cancer from negative thoughts and feelings, thereby fostering feelings of hope for a positive health outcome.

6. CONCLUSION

Based on the result of this study it was concluded that: -

There were statistical differences between the study and control group regarding the level of post-traumatic stress and coping strategies post intervention. This indicated that nursing intervention is the key element for reducing post-traumatic stress disorder and improving the coping patterns of women with breast cancer.

RECOMMENDATION

- Stress management and assertiveness training program should be given to cancer patients to relieve their psychological problems and enhance their coping patterns.
- Psychological nursing intervention should be integrated as a part of routine nursing care for the management of cancer patient.
- A screening program for women at age of 45years for early discovering and management of the disease in the early stage**.**
- Evaluating the breast cancer women psychologically and making the appropriate referral to a psychiatrist if needed.

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Vol. 6, Issue 1, pp: (29-42), Month: January - April 2019, Available at: www.noveltyjournals.com

APPENDIX - 1

Table (1): Distribution of the Study Sample regarding their Socio Demographic Data (n=50).

variables	Control group (n=25)		Study group(n=25)		χ^2	P
	N	%	N	%		
Age (years):						
34-<40	0	0	3	12.0	4.581	0101
40-<50	11	44.0	3	12.0		
50-<55	9	36.0	12	48.0		
55-60	5	20.0	7	28.0		
Education level:						
Illiterate	6	24.0	4	16.0		
Read & write	9	36.0	7	28.0		
Secondary educ.	9	36.0	10	40.0		
University educ.	1	20.0	4	16.0		
Occupation:						
Not work	16	64.0	16	64.0	0.000	1.000
Worker	9	36.0	9	36.0		
Residence:						
Rural	15	60.0	14	56.0		
Urban	10	40.0	11	44.0		
Marital status:						
Married	15	60.0	20	80.0	4.048	0.132
Divorced	1	4.0	2	8.0		
Widow	9	36.0	3	12.0		

***Significant (P<0.05)**

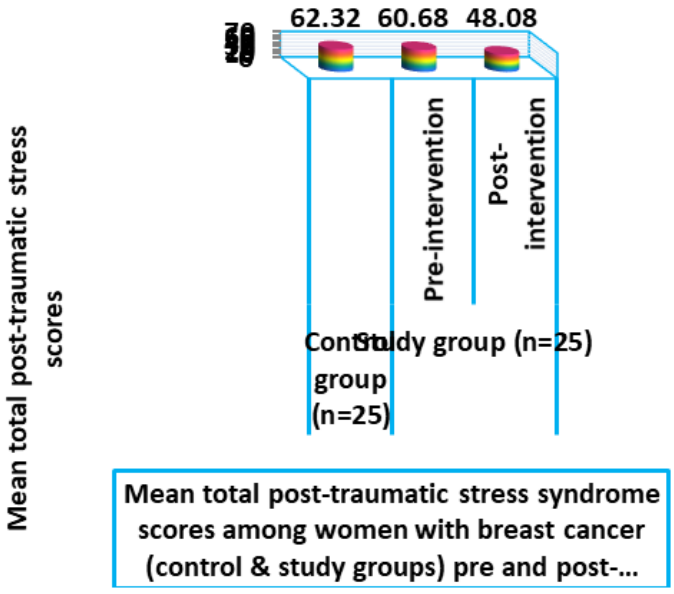

Figure (1): Mean Scores of Total Post-Traumatic Stress Disorder of the studied sample (control group and study group (pre and post intervention) (n=50).

Table (2): Mean Scores of Problem Focused Coping Scale Items of the Studied Women with Breast Cancer (control group and study group (pre and post intervention) (n=50).

variables	Control group (n=25) N Pre and post (I)	Study group(n=25)		f- value	Scheffe test p
		Pre intervention (II)	Post intervention (III)		
1-Seeking out information and social support: **Mean±SD**	**6.72±1.40**	**6.72±1.54**	**8.80±1.47**	0.0001*	**I vs III, P=0.0001* II vs III, P=0.0001***
2-Positive interpretation **Mean±SD**	**7.56±1.80**	**6.68±1.37**	**9.32±1.95**	0.0001*	**I vs III, P=0.003* II vs III, P=0.0001***
3-Exert of restraining **Mean±SD**	**5.80±0.71**	**6.60±1.98**	**7.84±1.18**	0.0001*	**I vs III, P=0.0001* II vs III, P=0.0001***
4-Denial: **Mean±SD**	**4.36±1.07**	**3.60±0. 82**	**4.76±2.50**	0.017*	**I vs III, P=0.609 II vs III, P=0.019***
5- Active coping **Mean±SD**	**5.92±**	**5.44±1. 83**	**9.16±1.54**	0.0001*	**I vs III, P=0.0001* II vs III, P=0.0001***

***Significant (P<0.05)**

Table (3): Mean Scores of Emotion Focused Coping Scale Items of the Studied Women with Breast Cancer (control group and study group (pre and post intervention) (n=50).

variables	Control group (n=25) Pre and post (I)	Study group(n=25)		F- value	Scheffe test p
		Pre intervention (II)	Post intervention (III)		
1-Helplessness: **Mean±SD**	**7.40±0.96**	**6.24±1.59**	**8.80±1. 79**	0.0001*	**I vs III, P=0.003* II vs III, P=0.0001***
2-Mental disengagement **Mean±SD**	**7. 64±1.60**	**7.56±1.76**	**10.16±1.07**	0.0001*	**I vs III, P=0.0001* II vs III, P=0.0001****
3-wishful thinking **Mean±SD**	**7.80±1.58**	**7.96±1.77**	**10.28±1.24**	0.0001*	**I vs III, P=0.0001* II vs III, P=0.0001***

International Journal of Novel Research in Healthcare and Nursing
Vol. 6, Issue 1, pp: (29-42), Month: January - April 2019, Available at: www.noveltyjournals.com

4-Turning to religion **Mean±SD**	**7.04±1.57**	**7.92±1. 75**	**10.16±1.28**	0.0001*	**I vs III, P=0.0001* II vs III, P=0.0001***
5-Emotional discharge **Mean±SD**	**6.32±1.28**	**5.88±1. 27**	**8.08±1.35**	0.0001*	**I vs III, P=0.0001* II vs III, P=0.0001***
6- Acceptance **Mean±SD**	**7.56±1.47** .	**7.44±1.78**	**10.56±1.66**	0.0001*	**I vs III, P=0.0001* II vs III, P=0.0001***

***Significant (P<0.05)**

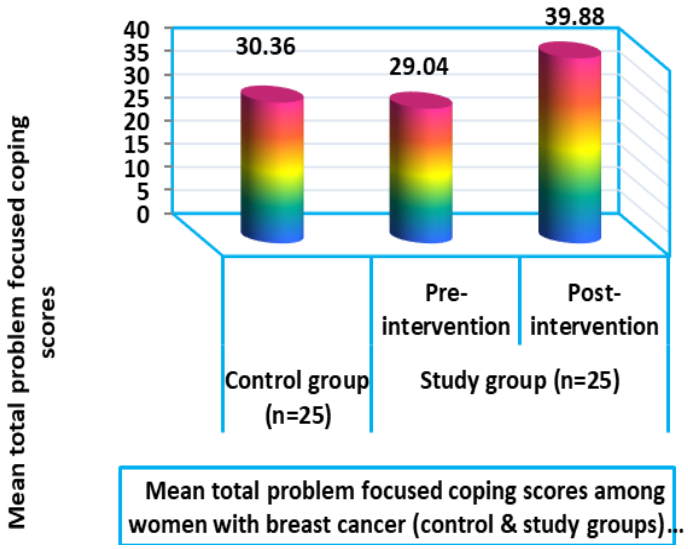

Figure (2): Mean Scores of Total Problem Focused Coping Scale of the Studied Women with Breast Cancer (control group and study group (pre and post intervention) (n=50).

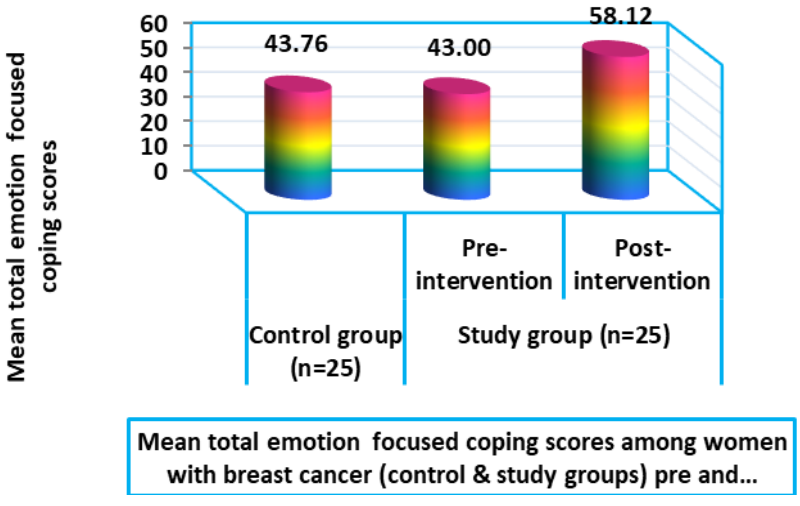

Figure (3): Mean Scores of Total Emotion Focused Coping Scale of the Studied Women with Breast Cancer (control group and study group (pre and post intervention) (n=50

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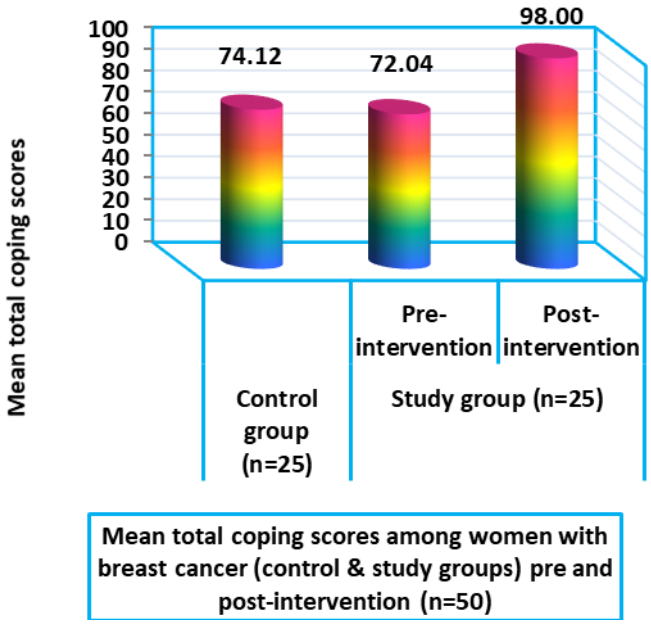

Figure (4): Mean Scores of Total Coping of the Studied Sample (control group and study group (pre and post intervention) (n=50).