REDVET - Revista electrónica de Veterinaria - ISSN 1695-7504
Vol 25, No. 1 (2024)
http://www.veterinaria.org
Article Received: Revised: Accepted:

Effectiveness Of Box Breathing Exercise On Stress Reduction Among Women After Mastectomy In Selected Settings At Thoothukudi And Tirunelveli District.

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Abstract
Introduction: Breast cancer is on the rise, both in rural and urban India. A 2018 report of Breast Cancer statistics recorded 1,62,468 new registered cases and 87,090 reported deaths. It is reported that with every four minutes, an Indian woman is diagnosed with breast cancer. Box breathing helps to reduce stress. It calms our nervous system, distracts our mind, and activates the parasympathetic nervous system.
Methods: AQuasi experimental pilot study, pretest and posttest with control group interrupted time series design with quantitative approach was conducted to assess the effectiveness of box breathing exercise on stress reduction among women after mastectomy. Box breathing exercise was predominantly given by nurses to relieve stress and improve the psychological wellbeing of 70 women between the age group of 25 to
65 years old after mastectomy. Stress questionnaire for cancer patients was used to assess the stress. Purposive sampling technique was used for selecting sample for the study.
Results: Data analysis was done by using descriptive statistics such as median,interquartile range and inferential statistics like chi square analysis and correlation coefficient. In experimental group, Repeated measures F-test analysis shows that, mean overall stress score is statistically significant different between pre-test and posttest-III($F = 23.51$, $P \leq 0.001$).
Conclusion: Therefore, we can conclude that box breathing reduces significantly stress score among women after mastectomy.

keywords;- Mastectomy,box breathing exercise and stress

Introduction

Breast cancer is a malignant tumor starts in breast.It is the most common type of cancer in women in the world. . It accounts for 12.5% of all new annual cancer cases worldwide, making it the most common cancer in the world .According to statistics report 28.2%% of cancers in Indian women with an estimated 2,16,208 cases by 2022.
More than 50%of breast cancer patients undergoing mastectomy surgery can have significant impacts on mental health aside from the side effects experience,stress over the future and self-esteem due to loss of breast, reducedattractiveness, femineity, changes in self-perception and negative effects of sexual wellbeing. Most of the breast cancer survivors report that they feel not attractive and feminine especially Infront of the eyes of their life partner.Chronic distress related to bodily changes is experienced by one in three women with breast cancer hampering resumption of normal life after cancer.

Statement of the problem

A study to assess the effectiveness of box breathing exercise on reduction of stress among women after mastectomy in Tirunelveli and Madurai district.

Objectives

1.To assess the pre and posttest level of stress among women after mastectomy in experimental and control group.
2.To evaluate the effectiveness of box breathing exercise on reduction of stress among women after mastectomy in experimental group.
3.To find out the association between box breathing exercise and posttest level of stress among women after mastectomy with their selected demographic variables in the experimental group.

Research Hypotheses

H1: There is significant difference between the pretest and posttest levels of stress after box breathing exercise among women after mastectomy in experimentalgroup.
H_2: There is significant association between box breathing exercise and stress among women with mastectomy and selected demographic variables in the experimental group.

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Research Methodology
Research design and approach
Quasi Quantitative approach is adopted for this study.

Research design
Quasi experimental study,pretest and post test with control group interrupted time series design with quantitative approach was used to assess the effectiveness of box breathing exercise on stress reduction among women after mastectomy.Experimental with time series design was be utilized in this study.

Group	Pretest	Intervention	Post test
Experimental group	O1	X	O2,O3,O4
Control group	O1	-	O2,O3,O4

KEY
O1 :Assessment of stress among women on 3rd post operative day after mastectomy in control and experimental group in pretest.
O2 :Assessment of stress among women on 10th day after mastectomy in control group and experimental group in post test 1.
O3 :Assessment of stress among women on 30th day after mastectomy in control group and experimental group in post test II
O4 :Assessment of stress among women on 60th day after mastectomy in control group and experimental group in post test III
X :Application of box breathing exercise among women after mastectomy.

Setting
The study was conducted in two hospitals in Madurai and Tirunelveli district.

Population
The population for the present study were all the women who underwent mastectomy and admitted in selected hospitals in Thoothukudi and Madurai district.

Sample
The samples for the present study were the women underwent mastectomy and admitted in selected hospitals, who fulfilled inclusion criteria for sample selection and available on the day of data collection.

Sample size
The sample consists of 70 women who underwent mastectomy and admitted in selected hospital in Madurai district and for the control group and 70women admitted in Tirunelveli district for the experimental group.

Sampling technique
Purposive sampling technique was used for selecting sample for the study.

Method of Data collection
semi structured interview
The type of tool used for the present study were:
1. Stress questionnaire for cancer patients

Part -A
Semi structured interview schedule consisted of demographic variables of the patients such age in years, educational status, place of residence, Occupational status, religion, family monthly income, marital status, type of family, dietary pattern, age at menarche, age at marriage, age at menopause, history of birth of first child, previous Source of information ,use of traditional treatment and distance to health care facility.
Clinical variables such as BMI, history of first diagnosis of cancer, history of breast feed to baby, family history of breast cancer, history of long term consequence of oral contraceptives, history of long term use of post menopausalharmone, breast surgery type, tumor grade, practicing BSE,method of detecting symptoms,history of comorbidity,stage of tumor and size of tumor.

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Part -B

Stress questionnaire for cancer patients

This is standardized tool to assess the level of stress among women after mastectomy.It is a standardized and validated 23 item self assessment instrument covering the stress of cancer patients' daily life .Response categories for each situation range from 0(not applicable to a very big problem)'

Min=0 Max=5 Total questions=23 Total score= 115

0-38 low

39-76 moderate

77-115 high

Data collection procedure

The purpose of the study was explained to the women and written consent was obtained. Demographic and clinical data were collected using semi structured interview schedule from women underwent mastectomy.

Pre-test

On the first day of data collection, pretest was done for each woman.Prior to the implementation of the intervention the investigator assesses the stress using stress questionnaire for cancer patient.

Intervention

Only for the experimental group the investigator implemented box breathing exercise along with hospital routine.

Box breathing exercise

- Breath in through the nose for a count of 4.
- Hold your breath for a count of 4.
- Breath out for a count of 4.
- Hold your breath for a count of 4.

For the Control group only the regular hospital routine was followed.

Post test

The investigator has done the post test for 3 times .

The investigator assessed stress using stress questionnaire for cancer patient to among women after mastectomy patients on 10th day ,30th day and 60th day.

Planned data analysis

Data analysis was done by using descriptive statistics such as median,interquartile range and inferential statistics like chi square analysis and correlation coefficient to know the effectiveness of box breathing exercise among women after mastectomy.

Results

Table 1: demographic profile

Demographic variables		Group				Chi square test
		Experimental(n=70)		Control(n=70)		
		n	%	n	%	
Age group	≤ 60 years	33	47.14%	27	38.57%	$\chi2$=1.55 p=0.46(NS)
	61-70 years	30	42.86%	32	45.72%	
	71-80 years	7	10.00%	11	15.71%	
Educational status	Primary school	63	90.00%	64	91.43%	$\chi2$=0.09 p=0.77(NS)
	High school	7	10.00%	6	8.57%	
	Graduate	0	0.00%	0	0.00%	
	Post graduate	0	0.00%	0	0.00%	
Place of residence	Urban	61	87.14%	64	91.43%	$\chi2$=0.67 p=0.41(NS)
	Rural	9	12.86%	6	8.57%	
Occupational status	Home maker	60	85.71%	56	80.00%	$\chi2$=0.81 p=0.37(NS)
	Daily wages	10	14.29%	14	20.00%	
	Government job	0	0.00%	0	0.00%	
	Others	0	0.00%	0	0.00%	

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Religion	Hindu	45	64.29%	49	70.00%	χ2=0.54 p=0.76(NS)
	Christian	16	22.86%	13	18.57%	
	Muslim	9	12.86%	8	11.43%	
Family monthly income	Less than 25,000	60	85.71%	62	88.57%	χ2=0.26 p=0.61(NS)
	25,001 -50,000	10	14.29%	8	11.43%	
	Greater than 50,000	0	0.00%	0	0.00%	
Marital status	Married	65	92.86%	67	95.71%	χ2=0.53 p=0.47(NS)
	Unmarried	0	0.00%	0	0.00%	
	Divorce	0	0.00%	0	0.00%	
	Widow	5	7.14%	3	4.29%	
Type of family	Nuclear family	58	82.86%	56	80.00%	χ2=0.19 p=0.66(NS)
	Joint family	12	17.14%	14	20.00%	
Dietary pattern	Mixed vegetarian	66	94.29%	67	95.71%	χ2=0.15 p=0.70(NS)
	Vegetarian	4	5.71%	3	4.29%	
	Eggetarian	0	0.00%	0	0.00%	
Age at marriage	Less than 21	45	64.29%	43	61.43%	χ2=0.12 p=0.73(NS)
	Above 21 years	25	35.71%	27	38.57%	
Age at birth of first child	Below 20 years	23	32.86%	27	38.57%	χ2=0.50 p=0.48(NS)
	20-30 years	47	67.14%	43	61.43%	
	30-40 years	0	0.00%	0	0.00%	
	Above 40 years	0	0.00%	0	0.00%	
Age at menopause	40 -45 years	0	0.00%	0	0.00%	χ2=1.02 p=0.31(NS)
	46-50 years	7	10.00%	11	15.71%	
	51-55 years	63	90.00%	59	84.29%	
	above 55 years	0	0.00%	0	0.00%	
	Not attained	0	0.00%	0	0.00%	
Previous source of information regarding breast cancer	Yes	23	32.86%	18	25.71%	χ2=0.86 p=0.35(NS)
	No	47	67.14%	52	74.29%	
Use of traditional treatment	Yes	0	0.00%	0	0.00%	χ2=0.00 p=1.00(NS)
	No	70	100.00%	70	100.00%	
Distance to the health facility	Less than 5 km	4	5.71%	2	2.86%	χ2=0.70 p=0.40(NS)
	More than 5 km	66	94.29%	68	97.14%	

Above table shows the demographic information of mastectomy women those who are participated inthe study.

Table 2: clinical profile

Clinical variables		Group				Chi square test
		Experimental(n=70)		Control(n=70)		
		n	%	n	%	
BMI	Under weight	7	10.00%	6	8.57%	χ2=0.78 p=0.85(NS)
	Normal	12	17.14%	15	21.43%	
	Over weight	39	55.71%	35	50.00%	
	Obese	12	17.14%	14	20.00%	
When was cancer first diagnosed?	< 90 days	70	100.00%	70	100.00%	χ2=0.00 p=1.00(NS)
	> 90 days	0	0.00%	0	0.00%	
History of breast feed to your baby?	Yes	61	87.14%	56	80.00%	χ2=1.30 p=0.25(NS)
	No	9	12.86%	14	20.00%	
Family history of breast cancer?	Yes	4	5.71%	3	4.29%	χ2=0.15 p=0.70(NS)
	No	66	94.29%	67	95.71%	
History of long term consequence of oral contraceptives?	Yes	3	4.29%	2	2.86%	χ2=0.21 p=0.65(NS)
	No	67	95.71%	68	97.14%	
History of long tern use of post menopausalharmone ?(No)	Yes	0	0.00%	0	0.00%	χ2=0.00 p=1.00(NS)
	No	70	100.00%	70	100.00%	
Breast surgery type	Total mastectomy	70	100.00%	70	100.00%	χ2=0.00 p=1.00(NS)
	Lumpectomy	0	0.00%	0	0.00%	
	Others	0	0.00%	0	0.00%	

Tumor grade	Stage I	0	0.00%	0	0.00%	$\chi2$=1.04 p=0.30(NS)
	Stage II	42	60.00%	36	51.43%	
	Stage III	28	40.00%	34	48.57%	
	Stage IV	0	0.00%	0	0.00%	
Practising BSE	Yes	3	4.29%	5	7.14%	$\chi2$=0.53 p=0.47NS)
	No	67	95.71%	65	92.86%	
Method of detecting symptoms	Accidently	62	88.57%	60	85.71%	$\chi2$=0.53 p=0.77(NS)
	During breast feeding	0	0.00%	0	0.00%	
	BSE	3	4.29%	5	7.14%	
	Others	5	7.14%	5	7.14%	
History of Comorbidity	Yes	58	82.86%	52	74.29%	$\chi2$=1.52 p=0.22(NS)
	No	12	17.14%	18	25.71%	
if yes	Hypertension	32	49.23%	42	60.00%	$\chi2$=2.60 p=0.45(NS)
	Diabetes mellitus	20	30.77%	15	21.43%	
	Tuberculosis	0	0.00%	0	0.00%	
	Others	5	7.69%	3	4.29%	
	Hyper+DM	8	12.31%	10	14.29%	
Tumor size in centimetre	less than 5cm	30	42.86%	23	32.86%	$\chi2$=1.49 p=0.22(NS)
	more than 5 cm	40	57.14%	47	67.14%	

Above table shows the clinical information of mastectomy women those who are participated in this study.

Table:3: Distribution of Pretest, Posttest-I, Posttest-II and Posttest-III Level of Stress scoreamong Experiment and Control group (N = 70+70)

Assessment	Level of Stress score	Group				Chi-square value/Yates corrected chi square test	P value
		Experimental Group (n=7)		Control Group (n=7)			
		No.	%	No.	%		
Pretest	Low	0	0.00%	0	0.00%	0.00	1.00 (NS) DF=1
	Moderate	0	0.00%	0	0.00%		
	High	70	100.00%	70	100.00%		
Posttest-I	Low	0	0.00%	0	0.00%	28.90	0.001*** (S) DF=1
	Moderate	30	42.86%	3	4.29%		
	High	40	57.14%	67	95.71%		
Posttest-II	Low	0	0.00%	0	0.00%	56.14	0.001*** (S) DF=1
	Moderate	48	68.57%	5	7.14%		
	High	22	31.43%	65	92.86%		
Posttest-III	Low	16	22.86%	0	0.00%	115.21	0.001*** (S) DF=2
	Moderate	54	77.14%	7	10.00%		
	High	0	0.00%	63	90.00%		

DF= Degrees of freedom S= significant NS= not significant
P>0.05 not significant P≤0.05 significant

Table:4comparison of the level of stress score between experimental and control group mastectomy women.
In pretest, there is no significant difference between experimental and control group of women. The non significant P-values 1.00 indicates, the level of stress scorewere similar in both the groups.
In posttest-I, there is no significant difference between experimental and control group of women. The non significant P-values 0.001 indicates, the level of stress scorewere similar in both the groups.
In posttest-II, there is a significant difference in level of Stress score between experimental and control group of women. The significant P- values 0.001 indicates, the level of stress scorebetween experiment and control groups is significantly different. Experimental group women are having more moderate level of stress score than control group.
In posttest-III, there is a significant difference in level of stress score between experimental and control group of women. The significant P- values 0.001 indicates, the level of stress score of women between experiment and control groups. Experimental group women are having low level of score than control group.

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Table:5Comparison of experimental and control group Mean stress score During Pretest, Posttest-I, Posttest-II and Posttest-III

Stress score	Group				Mean Difference	Student independent t=test
	Experimental(n=70)		Control(n=70)			
	Mean	SD	Mean	SD		
Pretest	92.77	6.62	91.97	6.78	0.80	t=0.71 P=0.48 DF=138 (NS)
Posttest-I	79.26	6.53	90.93	5.60	-11.67	t=11.36 P=0.001** DF=138 (S)
posttest-II	70.71	5.89	90.20	6.43	-19.49	t=18.70P=0.001*** DF=138 (S)
Postttest-III	67.59	3.86	89.90	6.20	-22.31	t=25.56 P=0.001*** DF=138 (S)

NS = Not significant P>0.05 is not significant S= significant
The above table describes the comparison of experimental and control group stress score among mastectomy women during Pretest, Posttest-I, Posttest-II and Posttest-III.
In pretest there is no significant difference , but in posttest1, posttest2 and posttest3 there is a significant difference. It was confirmed using independent t test .

Table 6:Comparison of mean stress score During Pretest, Posttest-I, Posttest-II and Posttest-III among experimental and control group

	Pre-test		Posttest-I		Posttest-II		Posttest-III		Mean difference	Oneway Repeated measures ANOVA F-test
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Experimental	92.77	6.62	79.26	6.53	70.71	5.89	67.59	3.86	25.18	F=183.43 p=0.001*** (S)
Control	91.97	6.78	90.93	5.60	90.20	6.43	89.90	6.20	2.07	F=1.57 p=0.21 (NS)

In experimental group, Repeated measures F-test analysis shows that, mean overall stress score is statistically significant different between pre-test and posttest-III($F = 183.43$, $P \leq 0.001$). Therefore, we can conclude that box breathing exercise significantly reduce the stress score among women.
Similarly, in control group, Repeated measures F-test analysis shows that, mean overall stress score is statistically not significant different between pre-test and posttest-III($F = 1.57$, $P > 0.05$). Therefore, we can conclude that routine care not reduces significantly stress score among women.

Table :7 Mean and Standard Deviation of the Level of stress score During Pretest, Posttest-I, and Posttest-II between Group Wise

Groups	Pretest		Posttest-I		Posttest-II		Posttest-III	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Experimental (n=70)	92.77	6.62	79.26	6.53	70.71	5.89	67.59	3.86
Control (n=70)	91.97	6.78	90.93	5.60	90.20	6.43	89.90	6.20

Above table shows the mean level of Level of stress score among women During Pretest, Posttest-I, and Posttest-II Group Wise
The mean stress scorefor the experimental group subjects was found to be 92.77 before the intervention. After the intervention, the level of stress was improved to 79.26 during posttest-I, and further improved to 70.71 in posttest-II and further improved to 67.59 in posttest-III. The mean stresswas found to be 91.97, 90.93, 90.20 and 89.90 at the pretest, posttest-I, posttest-II and posttest-III for the control group subjects .

Table: 8Effectiveness of box breathing exercise on stress reduction score

		Maximum Stress score	Mean Stress score	% of Mean Stress score	Mean Difference of Stress score from baseline with 95% Confidence interval	Percentage of Stress reduction score from baseline with 95% Confidence interval
Experimental	Pretest	115	92.77	80.67%	25.18 (23.20 – 27.17)	21.89% (20.17%–23.63%)
	Posttest-I	115	79.26	68.92%		
	Posttest-II	115	70.71	61.49%		

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	Posttest-III	115	67.59	58.77%		
Control	Pretest	115	91.97	79.97%	2.07 (-0.22 – 4.36)	1.80% (-0.19% –3.79%)
	Posttest-I	115	90.93	79.07%		
	Posttest-II	115	90.20	78.43%		
	Posttest-III	115	89.90	78.17%		

In experimental group, On an average, in posttest, after having box breathing exercises women are reduced 21.89% of Stress score.
In Control group, On an average, in posttest after having routine care women are reduced 1.80% of Stress score.
This difference shows the effectiveness of box breathing exerciseon stress reduced score in experimental group.
Differences and generalization of Stress score between pretest and posttest score was calculated using and mean difference with 95% CI and proportion with 95% CI.

Table:9Association between post-test level of stress score and mastectomy women Demographic variables

Demographic variables		Level of stress score				n	Chi square test
		Low		Moderate			
		n	%	n	%		
Age group	<60 years	9	27.27%	24	72.73%	33	χ2=1.14 p=0.56(NS)
	61-70 years	5	16.67%	25	83.33%	30	
	71-80 years	2	28.57%	5	71.43%	7	
Educational status	Primary school	12	19.05%	51	80.95%	63	**χ2=17.43p=0.001***(S)**
	Higher secondary school	4	57.14%	3	42.86%	7	
	Graduate	0	0.00%	0	0.00%	0	
	Post graduate	0	0.00%	0	0.00%	0	
Place of residence	Urban	13	21.31%	48	78.69%	61	χ2=0.64 p=0.42(NS)
	Rural	3	33.33%	6	66.67%	9	
Occupational status	Home maker	13	21.67%	47	78.33%	60	χ2=0.33 p=0.56(NS)
	Daily wages	3	30.00%	7	70.00%	10	
	Government job	0	0.00%	0	0.00%	0	
	Others	0	0.00%	0	0.00%	0	
Religion	Hindu	10	22.22%	35	77.78%	45	χ2=0.05 p=0.97(NS)
	Christian	4	25.00%	12	75.00%	16	
	Muslim	2	22.22%	7	77.78%	9	
Family monthly income	Less than 25,000	13	21.67%	47	78.33%	60	χ2=0.33 p=0.56(NS)
	25,001 -50,000	3	30.00%	7	70.00%	10	
	Greater than 50,000	0	0.00%	0	0.00%	0	
Marital status	Married	14	21.54%	51	78.46%	65	χ2=0.90 p=0.34(NS)
	Unmarried	0	0.00%	0	0.00%	0	
	Divorce	0	0.00%	0	0.00%	0	
	Widow	2	40.00%	3	60.00%	5	
Type of family	Nuclear family	10	17.24%	48	82.76%	58	**χ2=6.05p=0.01**(S)**
	Joint family	6	50.00%	6	50.00%	12	
Dietary pattern	Mixed vegetarian	13	19.70%	53	80.30%	66	χ2=3.78 p=0.06(NS)
	Vegetarian	3	75.00%	1	25.00%	4	
	Eggetarian	0	0.00%	0	0.00%	0	
Age at marriage	Less than 21	12	26.67%	33	73.33%	45	χ2=1.03 p=0.31(NS)
	Above 21 years	4	16.00%	21	84.00%	25	
Age at birth of first child	Below 20 years	3	13.04%	20	86.96%	23	χ2=1.87 p=0.17(NS)
	20-30 years	13	27.66%	34	72.34%	47	
	30-40 years	0	0.00%	0	0.00%	0	
	Above 40 years	0	0.00%	0	0.00%	0	
Age at menopause	40 -45 years	0	0.00%	0	0.00%	0	χ2=0.32 p=0.57(NS)
	46-50 years	1	14.29%	6	85.71%	7	
	51-55 years	15	23.81%	48	76.19%	63	
	above 55 years	0	0.00%	0	0.00%	0	
	Not attained	0	0.00%	0	0.00%	0	
Previous source of information regarding breast cancer	Yes	5	21.74%	18	78.26%	23	χ2=0.02 p=0.88(NS)
	No	11	23.40%	36	76.60%	47	
Use of tradition nal treatment	Yes	0	0.00%	0	0.00%	0	χ2=0.00 p=1.00(NS)
	No	16	22.86%	54	77.14%	70	

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Distance to the health facility	Less than 5 km	2	50.00%	2	50.00%	4	$\chi 2$=1.77 p=0.18(NS)
	More than 5 km	14	21.21%	52	78.79%	66	

Above table shows the association between posttest level of stress score among mastectomy women. More educated, and joint family women are having more low level of stress score than others. It was calculated using Chi square test.

Figure:1

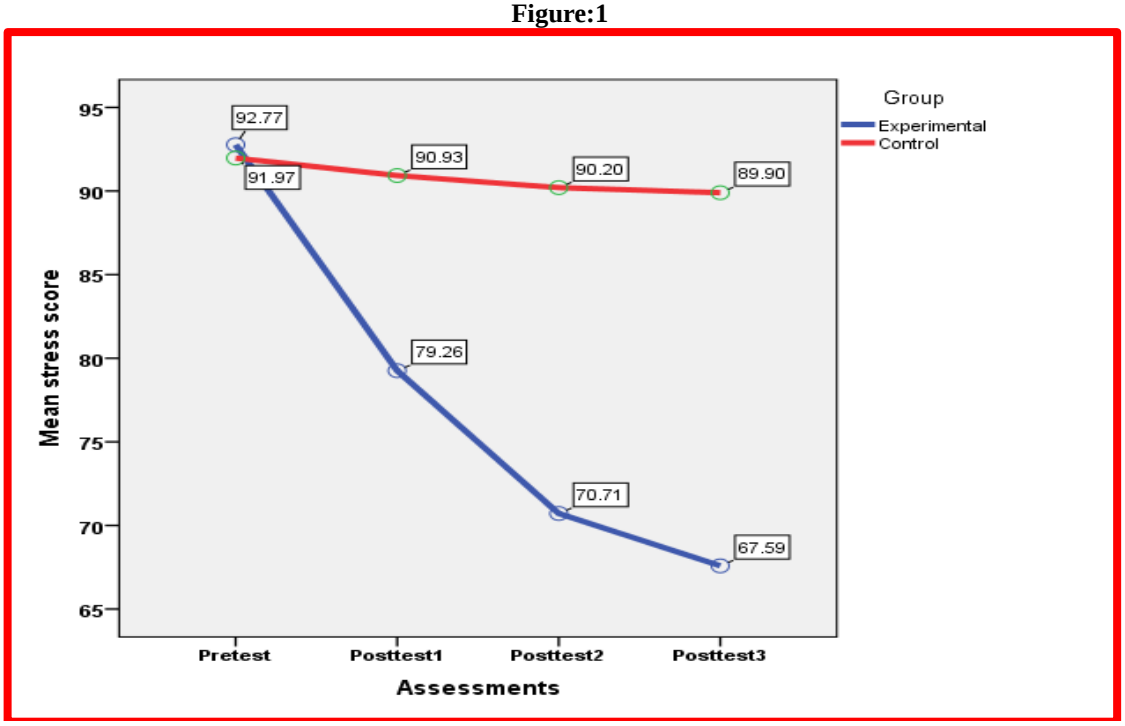
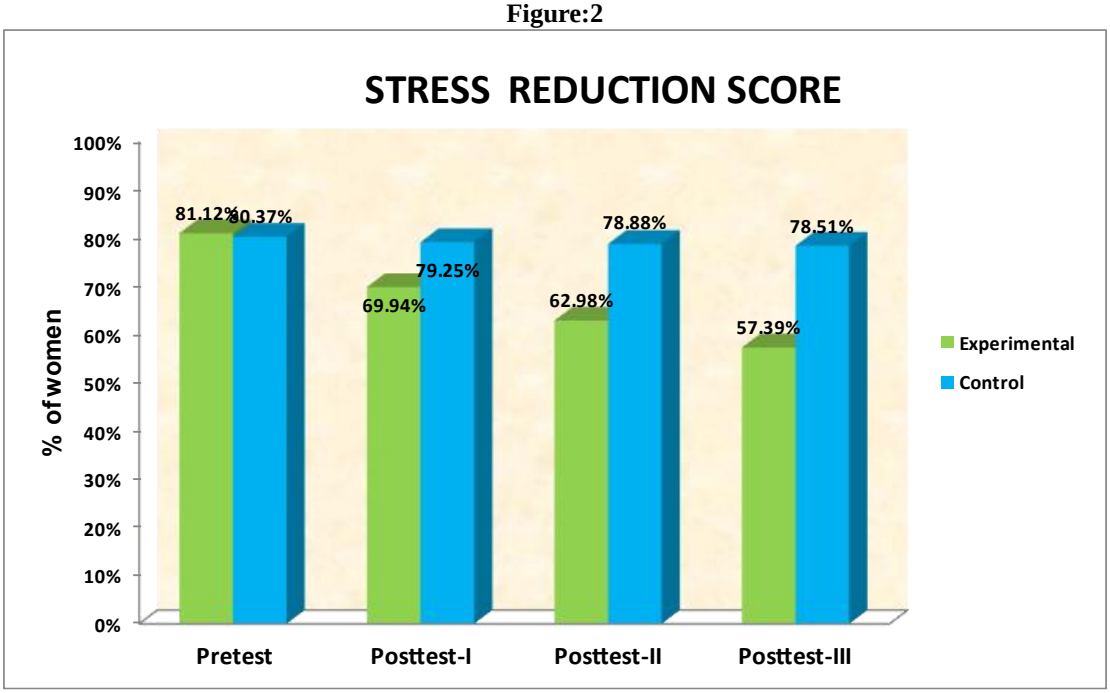


Fig1: Line graph shows the pretest, posttest-I, posttest-II andposttest-III of Experimental and control group Stress score.

Figure:2



REDVET - Revista electrónica de Veterinaria - ISSN 1695-7504
Vol 25, No. 1 (2024)
http://www.veterinaria.org
Article Received: Revised: Accepted:

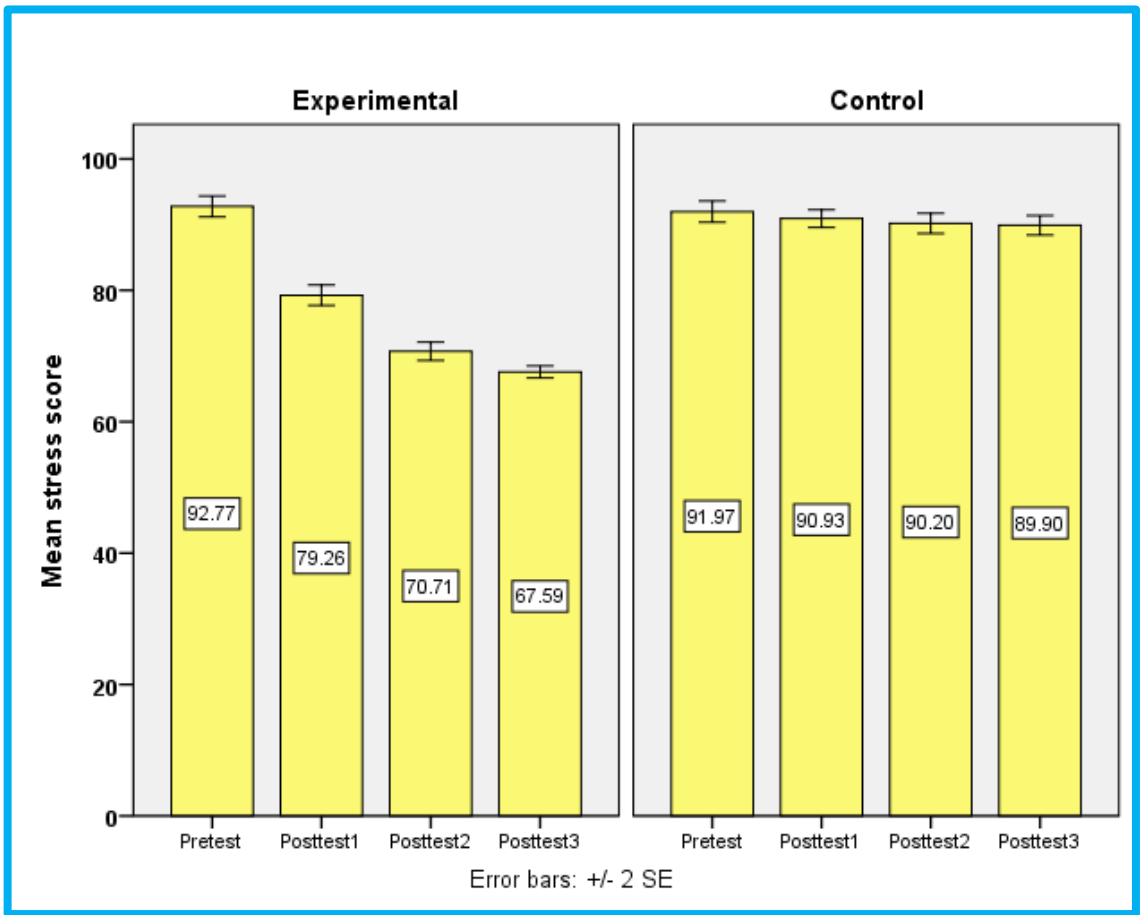


Fig3 shows the mean stress score of experiemental group and control group.

Discussion

Study results revealed that most of the women who underwent mastectomy have stress.

Long-term stress can increase the risk of high blood pressure,headaches,heart attacks and stroke.The ability to consciously regulate breath allows the body to leave a state of stress and enter into a state of calm.Box breathing is a powerful but simple relaxation technique that aims to return breathing to its usual rhythm after a stressful experience. It involves breathing in and out and holding the breath. It may help clear the mind, relax the body, and improve focus.Box breathing, also known as resetting the breath or four-square breathing, is easy to do, quick to learn, and can be highly effective in stressful situations. In experimental group, Repeated measures F-test analysis shows that, mean overall stress score is statistically significant different between pre-test and posttest-III($F = 183.43$, $P \leq 0.001$). Therefore, we can conclude that box breathing exercise significantly reduce the stress score among women.

Similarly, in control group, Repeated measures F-test analysis shows that, mean overall stress score is statistically not significant different between pre-test and posttest-III($F = 1.57$, $P > 0.05$). Therefore, we can conclude that routine care not reduces significantly stress score among women.

Bibliography

1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5351440/
2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5351438/.
3. https://www.cooperhealth.org/sites/default/files/pdfs/Coping%20with%20Appearance%20Changes.pdf
4. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6170016/
5. https://www.lbbc.org/news-opinion/body-image-and-breast-cancer-tips-and-truths
6. https://www.hindawi.com/journals/tswj/2014/451935/?utm_source=google&utm_medium=cpc&utm_campaign=HDW_MRKT_GBL_SUB_ADWO_PAI_DYNA_JOUR_X&gclid=Cj0KCQjw2NyFBhDoARIsAMtHtZ5_-oXtioW6n5cwZO7Fup03XOZSs9q4Rk-EWXJcyIyKtkCXC8_dDVMaAm
7. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6530598/
8. https://journals.lww.com/md-journal/fulltext/2020/05150/prevalence_of_postmastectomy_pain_syndrome_and.5.aspx
9. https://clinicaltrials.gov/ct2/show/NCT04058938
10. http://www.nzmsj.com/uploads/3/1/8/4/31845897/23_26nzmsj_issue_26_web_version.pdf

11. https://thebrobe.com/blogs/the-brobe-blog/ice-pack-bra-after-a-mastectomy
12. https://www.youtube.com/watch?v=xY70sHr6unA
13. https://www.scielo.br/j/fp/a/JZzqd8FGBKvbD7kjCNy94Tc/?format=pdf&lang=en
14. https://www.verywellhealth.com/how-to-do-arm-lymphedema-exercises-430210
15. https://www.cancerresearchuk.org/about-cancer/coping/physically/lymphoedema-and-cancer/treating/exercise
16. https://www.cancerresearchuk.org/about-cancer/coping/physically/lymphoedema-and-cancer/treating/exercise
17. https://www.nami.org/Blogs/NAMI-Blog/January-2019/Self-Help-Techniques-for-Coping-with-Mental-Illness
18. Journal of chronic diseases ,volume 40,issue6,1987,pages 529-534 from https://www.sciencedirect.com/science/article/abs/pii/0021968187900105