"EFFECTIVENESS OF STRETCH RELEASE RELAXATION EXERCISE ON STRESS AND ANXIETY AMONG PATIENTS WITH HYPERTENSION IN SELECTED HOSPITAL AT CHENNAI"

Ms.C.Geetha,Msc.,(N), Tutor, Meenakshi College Of Nursing, Chennai

Ms.G.Gowri, Msc.,(N).Associate Professor, Meenakshi College Of Nursing, Chennai. And Dr.Maheshwari jaikumar Msc.,(N) Phd., Principal Meenakshi College Of Nursing, Chennai.

Abstract

Objectives: The aim of the study as to find out the effectiveness of stretch release relaxation exercise (SRRE) on stress and anxiety and associate with demographic variables among hypertension patients with stress and anxiety in selected hospital at Chennai. **Methods**: An experimental research design was selected with a sample size of 60 hypertension patients (study group 30 and control group 30). The pre test was assessed with standardised Perceived stress scale (PSS) and Hamilton Anxiety rating scale (HAM-A) for both the groups, the study group patients alone performed the stretch release relaxation exercise for 30 days. Pre and post test effectiveness was assessed for the both groups with the same tool and data was analysed by using descriptive and inferential statistics. **Result:** There was an increased post test mean difference in the study group stress 2.7 and anxiety 3.8 then the mean difference in the control group stress -0.17 and anxiety 0.4 which was significant at $p<0.05$. **Conclusion**: The findings of the study concluded that the stretch release relaxation exercise was effective in reducing the stress and anxiety.

Keywords: stretch release relaxation exercise, effectiveness, stress and anxiety.

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INTRODUCTION:

The life time prevalence of anxiety and stress among adolescents and young adult around the world is currently estimated to range from 5% to 70% with an India. Efforts are underway to find non-pharmacological therapies to relive stress and anxiety, and stretch release relaxation exercise is one option for which results are promising. Result examined the effects of stretch release relaxation exercise regimen (n=35) on anxiety and on physiological psychological stress in hypertensive patients, a counselling program (n=33) served as the control after 4 weeks intervention the experimental observed a significant decrease. Nurse Managers are under increased stress because of excessive workloads and hospitals' restructuring which is affecting their work tasks. High levels of stress could affect their mental health. Enhance the mental health for nurse managers. A total of 65 nurse managers in Hong Kong were randomly assigned to stretch-release relaxation (n = 17) the test control group (n = 35). Mental health status was assessed using the Chinese version of State-Trait Anxiety Inventory and the Chinese version of the General Health Questionnaire. Participants

were assessed at the pre-treatment session, the fourth post treatment session, and at the 2 wks. follow-up session. The results revealed the stretch-release training enhanced mental health in nurse managers in Hong Kong.

in New Delhi". 64 post-baccalaureate premedical students investigated perceived experience of test anxiety. The students were taught to utilize deep breathing techniques to reduce their anxious feelings. The student's self-reports after the intervention indicated that they felt less test anxiety, nervousness, and self-doubt. ". Meta-analyses showed that simple biofeedback, relaxation-assisted biofeedback, progressive muscle relaxation and stress management training statistically significant changes in BP ($-5.0/-2.8$ mm Hg). Other published research on the Transcendental Meditation program suggest complementary effects on other CVD risk factors, disease markers, and clinical events for reducing psychosocial stress, smoking, alcohol abuse, myocardial ischemia, carotid atherosclerosis, and mortality rates. The Effect of Exercise Training on Anxiety Symptoms Among hypertensive patient in Canada". Stretch release relaxation Exercise training may help improve anxiety symptoms among patients. We estimated the population effect size for exercise training effects on anxiety and determined whether selected variables of theoretical or practical importance moderate the effect. Compared with no treatment conditions, stretch release relaxation exercise in training .The result shows that significantly reduced anxiety symptoms by a mean effect Δ of 0.29 (95% confidence interval, 0.23-0.36). Exercise training programs lasting no more than 12 weeks, using session durations of at least 30 minutes, and an anxiety report time frame greater than the past week resulted in the largest anxiety improvements.

MATERIAL AND METHODS:

The study was conducted from October 2015 to November 2015 in a Multispecialty Hospital in Chennai, India. The institutional ethical committee approved the study. Experimental approach with two groups, pre and post-test design was adopted. The study comprised Mild Hypertension (systolic Blood Pressure 140-159 mm Hg) and (Diastolic Blood Pressure 90-99 mm Hg) patients with stress and anxiety with mild hypertension, stress and anxiety aged between 35-65 years, 60 patients selected through a sample random sampling method. After the verbal explanation about this study written consent was taken from each patient. The demographic variable such as age, sex, religion, occupation, number of working hours per day, type of family, marital status, family history of hypertension, dietary pattern, personal habit and family income were assessed. The stress and anxiety was assessed by using perceived stress scale (PSS) the anxiety was assessed by using Hamilton Anxiety rating scale (HAM-A). Stress level is classified in to. 0-13 - low stress, 14-26 - moderate stress, 27-40 - high perceived stress
Anxiety level is classified in to. <17 – Mild, 18-24 – mild to moderate, 25-30 – moderate to severe.
The investigator divided the study group with 5 patients in each group. The stretch release relaxation exercise (shoulder, neck, hands, feet, abdominal muscle, arms, and slow breathing exercise increases the joint passive range of motion and the blood circulation) was taught to the study group patients and every day the patients were instructed to do the exercise in the morning for 30 mints with the investigator supervision for 30 days and post exercise stress and

anxiety was assessed. The control group continued the usual way of assessing stress and anxiety without stretch release relaxation exercise. Participants were asked to refrain from other forms of physical therapy during the study. They were not on any other treatment. The investigator made sure that patients were comfortable during the stretch release relaxation exercise. The data was analysed with descriptive and inferential statistical methods with significance level of $p < 0.05$.

Figure 1

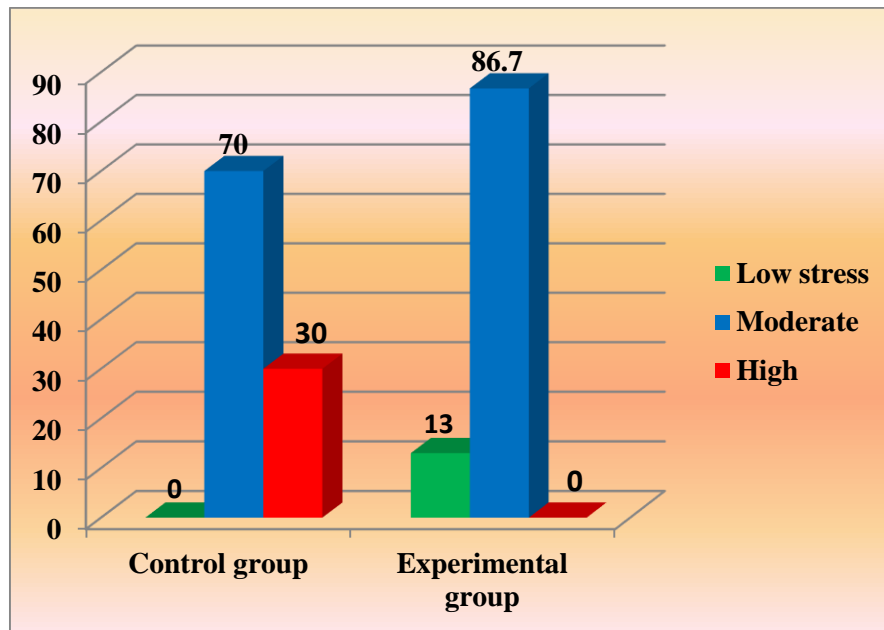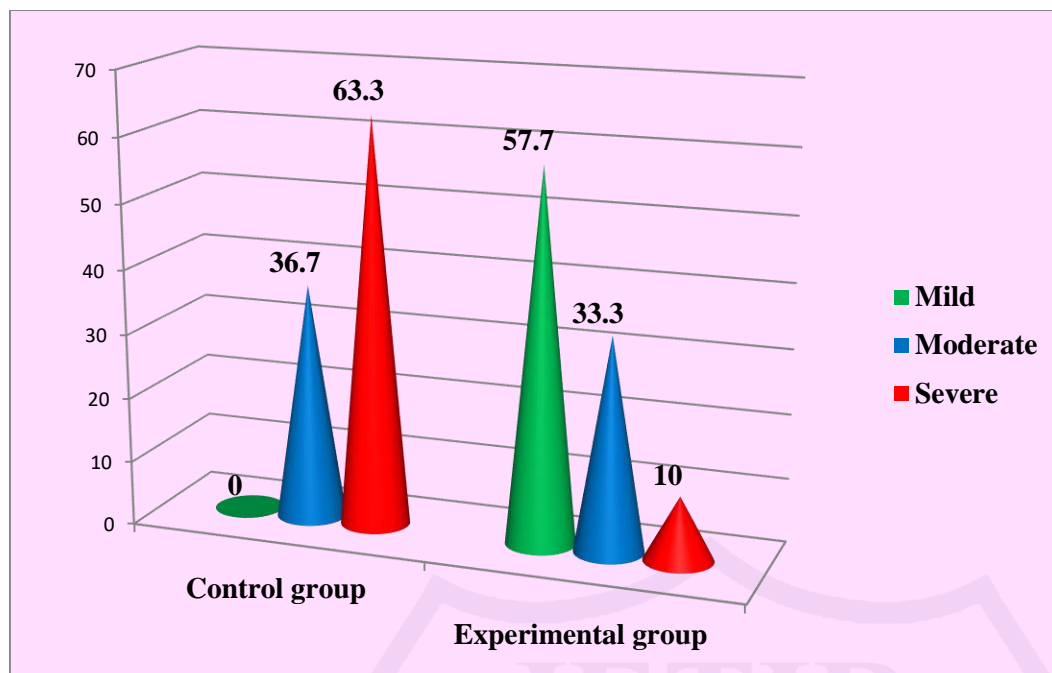**COMPARISON OF STRESS BETWEEN CONTROL AND EXPERIMENTAL GROUP IN POST TEST**

Figure 2

COMPARISON OF ANXIETY BETWEEN CONTROL AND EXPERIMENTAL GROUP IN POST TEST

Result and discussion In post-test there was no association between stress and anxiety with demographic variable in control and experimental group Except the marital status alone significant in experimental group at the level of (p<0.05) that there was no association of Anxiety with selected demographic variables of control and experimental group in post-test and only the demographic variable marital status had shown statistically significant association with level of anxiety at p<0.05 level in both control and experimental group.

Conclusion

In experimental group most of the patient had severe stress and moderate anxiety in pre test After doing the stretch release relaxation exercise their stress and anxiety was reduced to moderate stress and mild anxiety.In experimental group most of the patient had moderate stress and anxiety. In the control group there was no significant improvement in stress and anxiety. These findings showed that stretch relaxation exercise reduces stress and anxiety.

 Which is in accordance with **Matthew P. Herring, MS et al (2010)** a conducted a study on **"**The Effect of Exercise Training on Anxiety Symptoms Among hypertensive patient in Canada". Stretch release relaxation exercise (SRRE) training may help to decreased anxiety symptoms among patients. We estimated the population effect size for exercise training effects on anxiety and determined whether selected variables of theoretical or practical importance moderate the effect. Compared with no treatment conditions, stretch release relaxation exercise in training .The result shows that significantly reduced anxiety symptoms by a mean effect Δ of 0.29 (95% confidence interval, 0.23-0.36). Exercise training programs lasting no more than 4 weeks, using session durations of at least 30 minutes, and an anxiety report time frame greater than the past week resulted in the largest anxiety improvements. Respectively **Maxwell v, rain forth Ph.D., (2015)** conducted a study on "progressive muscle relaxation on stress among patients in china". Meta-analyses showed that simple biofeedback, relaxation-assisted biofeedback, progressive muscle relaxation and stress

management training statistically significant changes in stress with significance increased in post test mean difference $(-5.0/-2.8)$.

Table-1. Distribution of demographic variables.

N=60

S.No	Items	Control Group		Experimental Group	
		Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
1.	**Age (In Years)**				
	a) 35-44Yrs	4	13.3	8	26.7
	b) 45-54Yrs	17	56.7	12	40
	c) 55-65Yrs	9	30	10	33.3
2.	**Sex**				
	a) Male	17	56.7	13	43.3
	b) Female	13	43.3	17	56.7
3.	**Religion**				
	a) Hindu	19	63.2	23	76.7
	b) Christian	9	30	5	16.5
	c) Muslims	2	6.8	2	6.8
4.	**Occupation**				
	a) Unemployed	6	20	7	23.3
	b) Government employed	2	6.7	0	0
	c) Private employed	10	33.3	16	53.4
	d) Retired	1	3.3	0	0
	e) Own business	11	36.7	7	23.3
5.	**If Employed Number of Working Hours Per Day**				
	a) 6 Hrs	6	20	6	20.1
	b) 8 Hrs	5	16.7	16	53.3
	c) 10 Hrs	19	63.3	1	3.3
	d) 12 Hrs	0	0	0	0
	f) No Hrs	0	0	7	23.3
6.	**Marital Status**				
	a) Married	30	100	30	100
7.	**Type of Family**				
	a) Nuclear	11	36.7	10	33.3
	b) joint	19	63.3	20	66.7
8.	**Family History of Hypertension**				
	a) Yes	5	16.7	7	23.3
	b) No	25	83.3	23	76.7
9	**History of Taking Antihypertensive Medicines**				
	a) Yes	4	13.3	8	26.7
	b) No	26	86.7	22	73.3

10	**Dietary Pattern**				
	a) Vegetarian	2	6.7	0	0
	b) Non vegetarian	28	93.3	30	100
11	**Personal Habit**				
	a) Smoking	5	16.7	4	13.3
	b) Smoking and alcoholism	3	10	6	20.0
	c) No specific habits	22	73.3	20	66.7
12	**Family Income**				
	a) <5000	10	33.3	12	40
	b) 5001-10,000	19	63.4	18	60
	c) 10,001-20,000	1	3.3	0	0

Table 2. Comparison of stress and anxiety between control group and study group.

N=60

Variable	Control group			Study group		
	Mean	Mean Difference	SD	Mean	Mean Difference	SD
Pre test						
Stress	19.3		2.50	21.7		3.92
Anxiety	26.8		2.20	23		4.76
Post test		-0.17			2.76	
Stress	19.3		2.57	19.16		2.76
Anxiety	26.4	0.4	2.82	19.2	3.8	3.77

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