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Research Paper

Effectiveness of Jacobson Progressive Muscle Relaxation Technique on Stress Among Menopausal Women in Selected Urban Areas of Coimbatore

Nursing

KEYWORDS : Jacobson progressive muscle relaxation technique Menopausal women Stress Effectiveness

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ABSTRACT

This study was done to assess the effectiveness of Jacobson progressive muscle relaxation therapy on stress among menopausal women. The study, which used an experimental research design, recruited a sample of 40 subjects from the Saravanampatti urban area of Coimbatore by using simple random sampling technique. Samples were randomised into experimental (n =20) and control group (n =20). Pre test was done by using modified perceived stress scale to assess the stress level of menopausal women. Twenty study subjects (experimental group) received progressive muscle relaxation therapy. The progressive muscle relaxation was taught in a self-administered program, requiring one hour of training during the first three days, followed by the regular twice daily for 15-minutes in 12 days. The post test was done on 14 th day by using modified Cohen's stress scale. In control group, stress was assessed by using modified Cohen's scale perceived scale and they followed their regular activities. On 14th day they were reassessed using same scale. The result shows that a significance difference between the pre test and post test score on stress among menopausal women. This shows that Jacobson progressive muscle relaxation is effective in reduction of stress level among menopausal women.

INTRODUCTION

The word menopause gets its origin from the Greek "Meno' from men or Menos meaning "months" pause from "Pausis" means cessation. Menopause is the end of a Women's menstrual cycle. It is the phase when the women no longer experiences menstruation, technically her body begin's to produce the least amount of oestrogen and progesterone and eventually her period cease **(Ruth Formanek,2008)**

Menopause affect each women differently, 25 of women breeze through this transition, 50% of women experience mild to moderate symptoms, 25% of women experience sever stress enough to hinder their life drastically and require professional help in dealing with them **(Darke, 2003)**

The progressive muscle relaxation was developed by American physician Edmond Jacob Son M.D in early 1920's. It is a technique for reducing anxiety by alternately tensing and relaxing all the muscles. Progressive muscle relaxation entails a physical and mental component **(Judith Lazarus, 2000)**

Menopausal stress is common among women in India. The regular practice of progressive muscle relaxation helps to reduce stress due to menopause. Thus the purpose of the study was to determine the effect of progressive muscle relaxation on stress among menopausal women. On the basis of findings involving in menopausal women, the experimental group who practiced progressive muscle relaxation would exhibits greater decreases in stress levels while comparing with a control group.

Materials and Methods

For this study, the researcher adopted quantitative approach, which used an experimental research design. The researcher had sample of 40 subjects from Saravanampatti urban area by using simple random sampling technique. From the target population of menopausal women, samples were randomized into experimental (n =20) and control group (n =20).

DATA COLLECTION PROCEDURE

Written and Oral permission were obtained from Panchayat President and samples respectively. Demographic and obstetrical variables were collected by using the structured interview schedule. Pre test was done by using modified perceived stress scale in both the experimental and control group. Progressive muscle relaxation technique was taught to experimental group as a self-administered program, requiring one hour of training during the first three days, followed by the regular twice daily for 15-minutes in 12 days and control group followed their regular activities. The post test was done on 14th day by using modified Cohen's stress scale in experimental and control group.

STATISTICAL ANALYSIS

Data were analysed by using descriptive and inferential statistics. The range of stress were analysed by using descriptive statistics. Paired t test determined the difference in the mean stress test scores before and after participating in the intervention for both the experimental and control groups. The t test was used to compare the effectiveness of progressive muscle relaxation among menopausal women for both the group. The chi – square was used to associate the selected demographic with the stress score among menopausal women in both the groups.

Results

Table 1. Distribution of demographic variables among menopausal women in experimental and control group.

(n=40)

S. No	Demographic Variables	Experimental Group		Control group	
		No	%	No	%
1	Age in years 46-50 51-55	 11 9	 **54** **45**	 **10** **10**	 50 50
2	Religion Hindu Muslim Christian	 14 2 4	 **70** **10** **20**	 **15** **1** **4**	 **75** **5** 20
3	Education Illiterate Primary High school Graduate	 12 5 2 1	 **60** **25** **10** **5**	 **11** **66** **3** ---	 55 30 15 ---
4	Occupation Unemployed Employed	 17 3	 **85** **15**	 **11** **9**	 **55** **45**
5	Marital status Single Married Widow	 1 16 3	 **5** **80** **15**	 -- **18** **2**	 -- **90** **10**
6	Type of family Nuclear Joint	 16 4	 **80** **20**	 **17** **3**	 **85** **15**
7	Family monthly income Less than Rs. 3000 Rs, 3001-5000 Rs, 5001-7000	 8 11 1	 **40** **55** **5**	 **4** **14** **2**	 **20** **70** 10

Regarding the age of menopausal women in experimental group, 11 (55%) of them were between 46-50 years, 9 (45%) of them

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were between 51-55 years and in control group, 10 (50%) of them were between 46-50 years, 10 (50%) of them were between 51-55 years.

Regarding the religion in experimental group 14 (70%) of them were Hindus, 2 (10%) of them were Muslims, 4(20%) of them Christian and in control group 15 (75%) of them were Hindus, 1 (5%) of them were Muslims, 4(20%) of them Christian

With regard to education in experimental group 12 (60%) were illiterate, in control group 11 (55%) were illiterate

Table 2. Distribution of obstetrical variables among menopausal women in experimental and control group.

(n=40)

S. No	Obstetrical Variables	Experimental group		Control group	
		No	%	No	%
1	Number of years since menopause < 5 years > 5 years	**13** **7**	**65** **35**	**11** **9**	**55** **45**
2	Body mass index Underweight Normal weight Over weight Obesity	**3** **5** **10** **2**	**15** **25** **50** **10**	**3** **5** **11** **1**	**15** **25** **55** 5
3	Type of menopause Natural Surgical	**16** **4**	**80** **20**	**17** **3**	**85** **15**
4	Pattern of menopause Gradual Sudden	**15** **5**	**75** **25**	**17** **3**	**85** **15**

Obstetrical variables, majority of women were over weight in experimental group 10 (50%) and11(55%)were in control group

Table 3. Distribution of stress score among menopausal women in experimental and control group.

(n=40)

S No	Category of stress	Experimental group				Control group			
		Pre test		Post test		Pre test		Post test	
		No	%	No	%	No	%	No	%
1	Moderate stress	1	5	18	90	4	20	2	10
2	Severe stress	19	95	2	10	16	80	18	90

Table 4. Distribution of pretest and posttest stress score among menopausal women in experimental group.

(n=40)

Experimental group	Mean	S.D	Calculated value of t	Tabulated value of t
Pre test	33.75	2.34	**16.66**	**2.06**
Post test	23.65	2.85		

Table 5. Distribution of stress score Above among menopausal women in experimental and control group

(n=40)

Parameter	Experimental group		Control group	Calculated value of t	Tabulated value of t at 5% level	
	Mean	S.D	Mean	S.D		
Stress	23.65	2.85	31.70	3.13	2.60	1.96

Table 6. Association of stress score among menopausal women variables and obstetrical variables with the selected demographic in experimental group.

(n=40)

S. No	Variables	Above mean	Below mean	Calculated value of x^2	Tabulated value of x^2 at 5% level
1	Age in years 46-50 51-55	**5** **3**	**6** **6**	**< 1** **NS**	
2	Education Literate Illiterate	**2** **5**	**6** **7**	**< 1** **NS**	
3	Type of family Nuclear Joint	**12** **2**	**4** **2**	**< 1** NS	
4	Number of years since menopause < 5 years > 5 years	**5** **3**	**7** **5**	**< 1** **NS**	
5	Body mass index Below 25 Above25	**2** **6**	**2** **10**	< 1 NS	
6	Type of menopause a. Natural b. Surgical	**5** **2**	**10** **3**	**< 1** **NS**	**3.84**
7	Pattern of menopause Gradual Sudden	**5** **2**	**10** **3**	**< 1** **NS**	

Table 7. Association of stress score among menopausal women variables and obstetrical variables with the selected demographic in control group.

(n=40)

S. No.	Variables	Above mean	Below mean	Calculated value of x^2	Tabulated value of x^2 at 5% level
1	Age in years 46-50 51-55	**4** **5**	**6** **5**	**< 1** **NS**	
2	Education Literate Illiterate	**4** **5**	**4** **7**	**< 1** **NS**	
3	Type of family Nuclear Joint	**6** **2**	**9** **3**	**< 1** **NS**	
4	Number of years since menopause < 5 years > 5 years	**7** **2**	**8** **3**	< 1 NS	
5	Body mass index a. Below 25 b. Above 25	**2** **7**	**3** **8**	**< 1** **NS**	
6	Type of menopause a. Natural b. Surgical	**8** **1**	**8** **3**	**< 1** **NS**	3.84
7	Pattern of menopause a. Gradual b. Sudden	**8** **1**	**8** **3**	**< 1** **NS**	

Discussion

Exercise and physical activity are effective stress relief techniques that are often disregarded. Any type of exercise helps relieve stress by producing endorphins, neurotransmitters that boost mood. Post test mean stress score (23.65) among post menopausal women was significantly reduced with the effective progressive muscle relaxation technique which compared to pretest mean score(33.75) in experimental group. Among post menopausal women in control group, mean stress score was 31.70 without any intervention when compared to experimental group which was reduced (23.65) with progressive muscle relaxation techniques. The researcher concluded that Jacobson progressive muscle relaxa-

tion technique was effective over stress and it could be practiced regularly to reduce stress, thereby promoting the mental health of post menopausal women.

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