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Effect of relaxation therapy on quality of life in post-menopausal woman: An experimental study

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Abstract

Background: Menopause is the time that marks the end of your menstrual cycles. Physiological changes related to menopause are physical symptoms, weight changes, articular and muscular changes, fitness changes, vascular changes, skin changes and psychological aspects. Relaxation is a process that decreases the effects of stress on your mind and body. It also relieves the pathological tension within the muscles. Jacobson's method of relaxation works on the principle of peripheralist mechanism. It leads to activation of parasympathetic nervous system, thus reducing the skeletal muscle tone. This study aims in determining the effect of relaxation therapy on quality of life in post-menopausal woman

Method: The study was conducted on 25 menopausal women between the age group of 48 to 58 years. It was an experimental study in which random sampling was done. Various factors were assessed like hot flushes, night sweats, poor memory, aching in muscles and joints etc. using MENQOL questionnaire.

Results: This study evaluated 25(n) subjects out of which 17 females (68%) were between the age group of 48 to 52 and 8 females (32%) were between the age group of 53 to 58. The mean value of MENQOL questionnaire pre experiment was 106.76 whereas post experiment was 49.12. Paired t-test was done to compare MENQOL Questionnaire scores which showed p value < 0.0001 which is considered extremely significant.

Conclusion: Relaxation therapy was effective in improving the quality of life in post-menopausal woman.

Keywords: Menopause, relaxation therapy, MENQOL questionnaire

1. Introduction

Menopause is the time that marks the end of your menstrual cycles.

Physiological changes related to menopause: physical symptoms, weight changes, articular and muscular changes, fitness changes, vascular changes, skin changes, psychological aspects.

o Relaxation

Relaxation is a process that decreases the effects of stress on your mind and body

It also relieves the pathological tension within the muscles. Basic conditions needed for general relaxation are: support, comfort and restful atmosphere.

Jacobs on method of relaxation

Jacobson explains relaxation by a popular neurophysiologic explanation of "PERIPHERALIST MECHANISM" The sympathetic and parasympathetic nervous system works reciprocally in that elevated activation of one leads to deactivation of the other.

Sympathetic activation is called ergotropic response whereas parasympathetic activation is called as trophotropic response, which is basis of relaxation.

Reduction in the skeletal muscle tone leads to loss in ergotropic tone of the hypothalamus

In other words, muscle relaxation in the periphery results in centrally mediated shift of the bodily system towards a trophotropic response.

o MENQOL questionnaire

The Questionnaire consists of 29 components. The scoring of the scale ranges from 0 which is not at all bothered to 6 which is extremely bothered.

Need of study

Post-menopausal symptoms affect the quality of life in many ways. Relaxation technique leads to significant reduction in hot flash intensity and concurrent psychological symptoms of tension: anxiety and depression. As there is lack of study on this technique there is a need to study.

2. AIM

TO study the effect of relaxation therapy on quality of life in post-menopausal woman.

3. Objectives

TO study the effect of relaxation therapy on quality of life in post-menopausal woman using MENQOL questionnaire after 3 weeks.

4. Hypothesis

○ Null hypothesis(h₀)

There will be no significant effect of relaxation technique on quality of life in post-menopausal women.

○ Alternate hypothesis(H₁):

There will be no significant effect of relaxation technique on quality of life in post-menopausal women.

5. Methodology

- Study design: Experimental study
- Sample Size:50
- Sample Method: Random Sampling
- Study population: Post- Menopausal Women between the age of 48 to 58 years
- Study setting: In and around the residential area.
- Study Duration: 6 MONTHS

6. Criteria

○ Inclusion criteria

- Women between the age of 48 to 58 years
- Women having menopause since 1 year.
- Women who have filled the consent form
- Graduated women will be included.

○ Exclusion criteria

- Above 60 years
- Women who have undergone recent hip, knee, ankle surgeries
- Women who have undergone recent trauma of upper limb and lower limb treated Conservatively
- Cognitively impaired
- Women already practicing relaxation technique
- Females who have undergone hysterectomy.
- Exclude women who are practicing yoga and meditation

7. Tools and materials

- MENQOL questionnaire
- Pen
- Consent form
- Spring mattress
- 2 pillows
- Consent form
- Spring mattress
- 2 pillows

8. Outcome measures MENQOL questionnaire

The Menopause-specific Quality of Life (MENQOL) Questionnaire.

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The Menopause-Specific Quality of Life Questionnaire

For each of the following items, indicate whether you have experienced the problem in the
FAST MONTH. If you have, rate how much you have been *bothered* by the problem.

				Not at all bothered	0	1	2	3	4	5	6	Extremely bothered
1. HOT FLUSHES OR FLASHES	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
2. NIGHT SWEATS	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
3. SWEATING	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
4. BEING DISSATISFIED WITH MY PERSONAL LIFE	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
5. FEELING ANXIOUS OR NERVOUS	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
6. EXPERIENCING POOR MEMORY	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
7. ACCOMPLISHING LESS THAN I USED TO	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
8. FEELING DEPRESSED, DOWN OR BLUE	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
9. BEING IMPATIENT WITH OTHER PEOPLE	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
10. FEELINGS OF WANTING TO BE ALONE	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
11. FLATULENCE (WIND) OR GAS PAINS	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
12. ACHING IN MUSCLES AND JOINTS	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
13. FEELING TIRED OR WORN OUT	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
14. DIFFICULTY SLEEPING	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
15. ACHES IN BACK OF NECK OR HEAD	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
16. DECREASE IN PHYSICAL STRENGTH	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
17. DECREASE IN STAMINA	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
18. FEELING A LACK OF ENERGY	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
19. DRYING SKIN	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
20. WEIGHT GAIN	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
21. INCREASED FACIAL HAIR	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
22. CHANGES IN APPEARANCE, TEXTURE, OR TONE OF YOUR SKIN	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
23. FEELING BLOATED	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
24. LOW BACKACHE	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
25. FREQUENT URINATION	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
26. INVOLUNTARY URINATION WHEN LAUGHING OR COUGHING	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
27. CHANGE IN YOUR SEXUAL DESIRE	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
28. VAGINAL DRYNESS DURING INTERCOURSE	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		
29. AVOIDING INTIMACY	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→	0	1	2	3	4	5	6		

9. Procedure

- The study will begin with a synopsis presentation in front of the ethical committee
- Ethical clearance will be obtained from the committee
- Subjects will be selected according to the inclusion and exclusion criteria
- The study will be explained to the subjects and a written consent will be taken from them.
- It will be an experimental study in which post-menopausal women between 48 to 58 years of age will be given relaxation technique for 3 weeks.
- Before starting the intervention, they will be
- The intervention o will be of 30 min and 3 times per week.

○ Protocol

Post-menopausal women with a score 3 or less will be given relaxation technique for 3 weeks
The intervention will be 3 times per week and of 30 min.

Patient position: supine lying

The patient is positioned in supine lying position and two pillows are placed, one under the head and one under the knees.

Technique

- 5 min of rest will be given at the beginning of the technique.
- Relaxation will be given for 20 min.
- Two types of instructions will be given like” tighten” and” let go”
- During tightening patient has to inhale while during let go patient should exhale.
- During both the instructions patient should hold for 5 to 7 seconds. 5 min of rest will be given at the end of the technique.

○ **Instructions**

- The technique will progress from distal to proximal manner
- Two types of instructions were given like” tighten” and” let go”
- During tightening patient has to inhale while during let go patient has to exhale.
- During both the instructions patient should hold the breath for 5 to 7 seconds.



Fig 1: “Clench your hands and contract”



Fig 2: “Clench your wrist and bend from the elbow”

10. Data Analysis

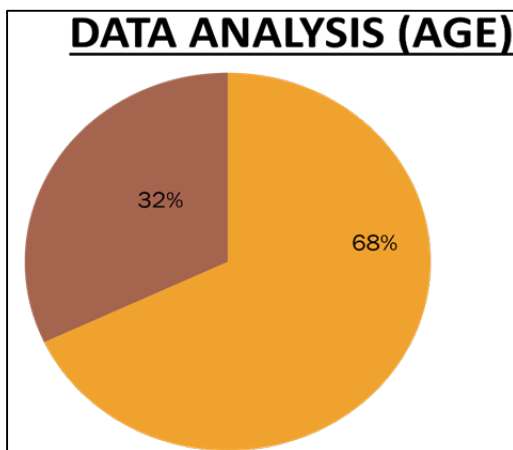


Fig 3: Female Distribution (Age)

Group A -48 to 52

Group B-53 to 58.

• **Menopause specific quality of life questionnaire**

MENQOL	MEAN	T VALUE	P VALUE	SIGNIFICANCE
PRE	106.76	29.2011	>0.0001	EXTREMELY SIGNIFICANT
POST	49.12			

• **MENQOL SCORE MEAN**

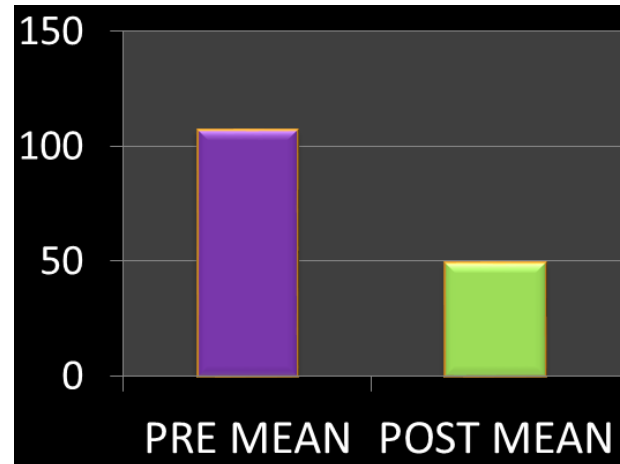


Fig 4: MEAN (PRE and POST)

Results

- This study evaluated 25(n) subjects out of which 17 females (68%) were between the age group of 48 to 52 and 8 females (32%) were between the age group of 53 to 58.
- Paired t-test was done to compare MENQOL Questionnaire scores which showed p value<0.0001 which is considered extremely significant.

11. Discussion

- The objective of current study was to find out whether Relaxation Therapy was effective on Quality of Life in Post-Menopausal woman.
- Total 25 females participated in the study in which 17 females (68%) were between the age group of 48 to 52 and 8 (32%) females were between the age group of 53 to 58
- Relaxation is a parasympathetic response and is a protective mechanism against overstress. It is characterized by reduced sympathetic nervous, cortical, and skeletal muscle activity. Relaxation response is hypothalamically mediated and that it is an inborn counterbalancing mechanism to the stress response, thus improving the quality of life.
- Relaxation response has also been shown to be effective in the treatment of many health problems including musculoskeletal disorders, gastrointestinal disorders, cardiovascular disorders, and others, including stabilizing blood sugars in diabetics, reducing nausea associated with chemotherapy, reducing the severity of arthritis, insomnia, and also reducing hostility and anxiety .in our study it revealed the same.
- In the present study, total 25 individuals (n=25) participated. The Pre Mean was 106.76 and the Post Mean was 49.12. The p value was >0.0001 which is

extremely significant. This result showed that Jacobson's method of relaxation technique has significant effect on reducing post-menopausal symptoms and thus improving Quality of Life in Post-menopausal women.

- Progressive muscle relaxation or Jacobson's technique is based on a basic principle of muscle physiology. Whenever a muscle is tensed, releasing the tension invariably creates relaxation in the muscle. Muscle tension is always accompanied by a shortening of muscle fibers and thus by reducing muscle the tension results in reduced central nervous system activity and promotes a relaxed state.
- The basic process of PMR is to focus on any voluntary muscle and in sequence and relax that muscle.
- Tejal C Nalawade in her study suggests that there are potential benefits of Jacobson's Progressive Muscle Relaxation technique on psychological factors and thus improving the Quality of Life. When Progressive Muscle Relaxation is practiced and incorporated to the individual's lifestyle, it can help to neutralize some of the effects of stress reaction by releasing tension in the body. Our study results reveal the same.
- Choi Y K in his study revealed that relaxation technique significantly decreased anxiety and fatigue and increased quality of life in all conditions across. Results also indicated that there was significant difference between pre and post test scores of anxiety, fatigue, and quality of life regardless of condition. Our study results reveal the same.

12. Conclusion

- The study concludes that Jacobson's method of relaxation technique is effective in improving the Quality of Life in Post-Menopausal females.
- Hence, our alternate hypothesis is accepted.

13. Clinical implication

- Progressive muscle relaxation is a practice that is non-invasive, affordable, effective, and easy to apply
- It is affordable and effective.
- It is very easy to apply
- In a very short period of time there was significant improvement in quality of life.
- It is not a time-consuming program; individuals can take out time conveniently even in their busy schedules.

14. Limitation

- Presence of Covid 19 pandemic
- In current study the sample size was small.

15. Future scope

- The same protocol could be implemented in different populations like elderly, school students etc.
- Further research can be carried out by extending the duration of protocol.
- Larger sample size can be taken for future study

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