

## Effectiveness Of Jacobson's Progressive Muscle Relaxation Therapy On Quality Of Sleep And Level Of Depression Among Elderly People Residing In Selected Old Age Homes, Himachal Pradesh

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### Abstract

**Introduction:** This study aimed to Assess the Effectiveness of Jacobson Progressive Muscle Relaxation (JPMR) therapy in improving sleep quality and reducing symptoms of depression. Sleep disturbances and depression are prevalent mental health concerns that often coexist, leading to a detrimental impact on individuals overall well-being. Jacobson PMR is a widely recognized relaxation technique that aims to alleviate muscle tension and promote a sense of relaxation and tranquillity. However, limited research exists on its specific impact on sleep quality and depression.

**Methods:** A Quasi experimental study was conducted with a sample of 50 participants (in research group), all of whom exhibited varying degrees of sleep disturbances and depressive symptoms. The Participants underwent Jacobson PMR intervention for 21 days followed up till 28<sup>th</sup> day and post-intervention assessments were conducted on 30th day by using standardized measures, including the Pittsburgh Sleep Quality Index (PSQI) for sleep quality evaluation and Hamilton depression scale for depression assessment.

**Results:** The results demonstrated a significant improvement in sleep quality among participants who underwent Jacobson PMR therapy ( $p < 0.05$ ). Moreover, a notable reduction in depression symptoms was observed in the participants ( $p < 0.05$ ).

**Conclusion:** This study provides empirical evidence supporting the effectiveness of Jacobson PMR therapy as a complementary intervention for enhancing sleep quality and alleviating depression. Further research could explore the long-term effects of Jacobson PMR and its integration into holistic treatment approaches for individuals with co-occurring sleep and mood disorders.

**Keywords:** Jacobson's Progressive Muscle Relaxation (PMR) Techniques, PSQI (Pittsburg sleep quality index), Hamilton Depression Scale

### INTRODUCTION

Ageing is an inevitable part of life. Each person should go through this era of life at their own pace. When taken at face value, aging is a reflection of all the changes that occur over the course of a lifetime. From the moment of birth, a person goes through all these changes as they mature, grow, and develop. A person's life goes through a variety of physical, psychological, and social changes as they age, which is a natural and unavoidable process. People have a distinct mix of opportunities and problems as they age, particularly in relation to their health and wellbeing. Gerontology, which focuses on the study of aging, has shed light on the challenges of maintaining health as we age and the methods that can help people live happy, productive lives in our later years. Aging is frequently accompanied by a rise in susceptibility to a number of illnesses and a decline in physiological functions. It's crucial to remember that aging does not always indicate poor health. Many elderly people live active lives and stay in good health. In this exploration of aging, we look at the traits that define this phase of life on a physical, mental, and emotional level. We also examine how an aging population affects intergenerational relationships and societal institutions like healthcare. Studying the intricacies of aging helps us gain a better grasp of the complexity and diversity of the human experience throughout life. The method was created in the 1920s by Dr. Edmund Jacobson to assist his patients in overcoming issues such as depression, poor sleep, anxiety, and discomfort. Dr. Jacobson believed that calming the muscles may also calm the mind. One muscle group is tightened

while the others are left unaffected by the procedure. A form of therapy known as Jacobson's relaxation technique focuses on sequentially contracting and relaxing particular muscle groups.

The term "progressive relaxation therapy" is often used and you can increase your awareness of your body and its physical sensations by focusing on certain places, tensing them, and then relaxing them. The relaxation method developed by Jacobson is frequently used to treat insomnia. Treatment services aimed at enhancing grown up adults' mental health and quality of life are crucial due to the rapidly aging population and rising life expectancy. As a result, hospital care for older adults needs to be expanded to go beyond disease orientation and include a total multidimensional approach with adjunct therapies like JPMR and regular breathing. The main goal was to evaluate the effectiveness of progressive muscle relaxation and deep breathing exercises in reducing anxiety, psychological distress, and improving sleep quality in older hospitalized adults so that this could be included as a routine care service for the admitted patients as part of a multidimensional health care model.

## OBJECTIVES

1. To assess the quality of sleep and level of depression among elderly people.
2. To assess the effectiveness of Jacobson's progressive muscle relaxation therapy on quality of sleep and Level of depression among elderly people.
3. To find out the correlation between Quality of Sleep and level of Depression.
4. To find out association between quality of sleep and level of depression with selected demographic variable.

## REVIEW OF LITERATURE

A study was conducted to assess the impact of progressive muscle relaxation on depression symptoms in elderly people. The goal of the current study was to ascertain how increasing muscular relaxation affected elderly people's depression symptoms. In two senior daycare facilities in Mazandaran, this study was undertaken in 2019. 76 senior persons in total, 38 in each of the intervention and control groups. For 30 days, the intervention group practiced relaxation techniques twice daily, whereas the control group merely received standard care. Using the Geriatric Depression Scale, depression levels in the two groups were evaluated prior to and one month following relaxation. Mann-Whitney and Wilcoxon tests were used in SPSS-22 to evaluate the data. After a month, the intervention group's depression score decreased from 7.13 to 5.55 (0.98) ( $P = 0.001$ ), although the reduction in the control group's score was not statistically significant (from 7.13 to 7.18 (0.83)) ( $P = 0.655$ ). The intervention had a significant impact on older adults' depression scores ( $P = 0.001$ ).

A study was conducted at the Budi Agung Social Institution to evaluate the impact of Jacobson's Progressive Muscular Relaxation on Elderly Sleep Quality. A single group pretest-posttest design characterizes this pre-experimental investigation. The 19 elderly residents of Budi Agung Social Institution served as the study's subject. JPMR training took place in this study over the course of five days.

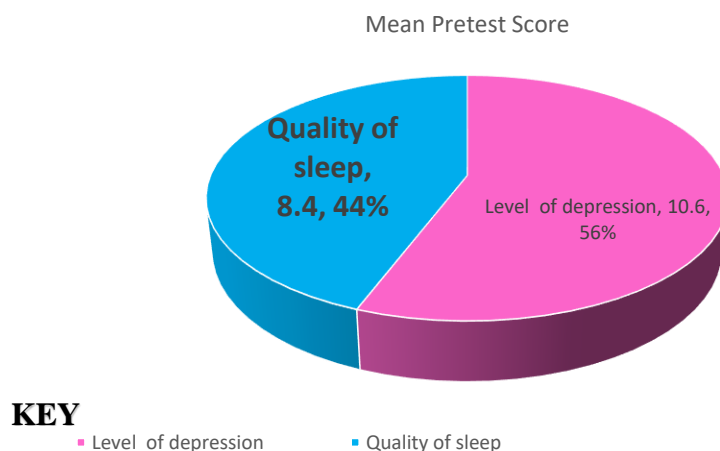
The Pittsburgh Sleep Quality Index (PSQI) questionnaire was used to compare the quality of sleep before and after the JPMR exercise. The McNemar test was used to examine the data that was obtained. In total of 19 participants, 3 had good sleep quality whereas 16 had poor sleep quality. However, the 16 individuals showed improved sleep quality following the JPMR exercise, but the 3 subjects continued to have poor sleep quality; bivariate analysis  $p$  value = 0.002 ( $p < 0.05$ ).

## RESEARCH METHODOLOGY:

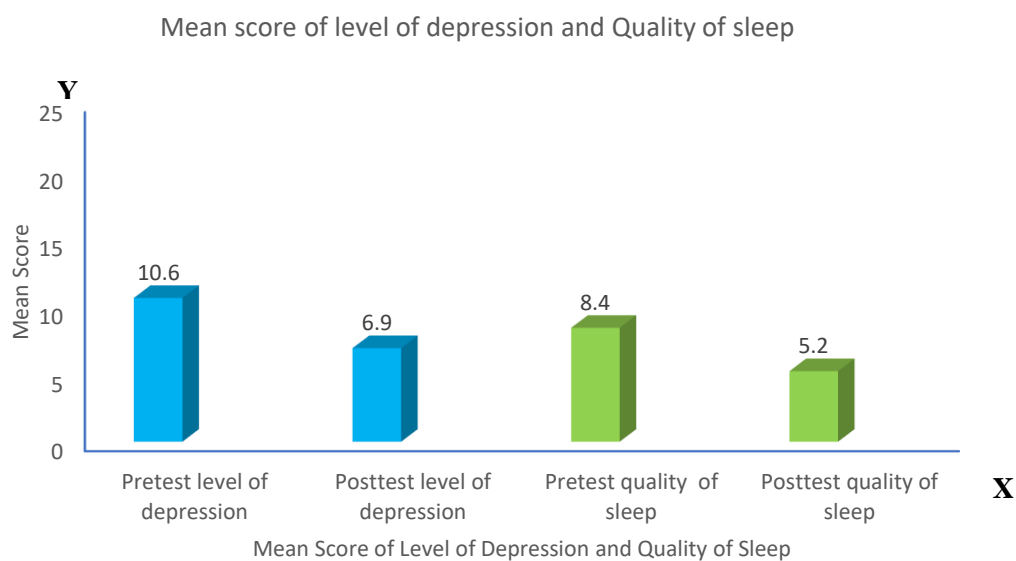
A quantitative research approach and Quasi- experimental (One group Pretest post-test design) was adopted for study. The study took place in the old age home Bhangrotu (Mandi), The suket senior citizen home Sundernagar (Mandi), Old age home Bilaspur H.P. The sample selection was done through consecutive sampling technique and 50 elderly people were allocated in research group. Informed consent was taken from the participants and Confidentiality of the obtained information was maintained. The demographic data was collected from elderly people by using sociodemographic data sheet. Pretest was taken to assess the Quality of sleep and Level of depression among elderly people. Jacobson's progressive Muscle relaxation therapy was provided 2 times a day for 21 days followed by regular follow-up for 28 days. Post-test was obtained on 30th day to assess the effectiveness of Jacobson's muscle relaxation therapy on quality of sleep and level of depression. Collected data was coded in Excel for analysis and interpretation.

## RESULTS

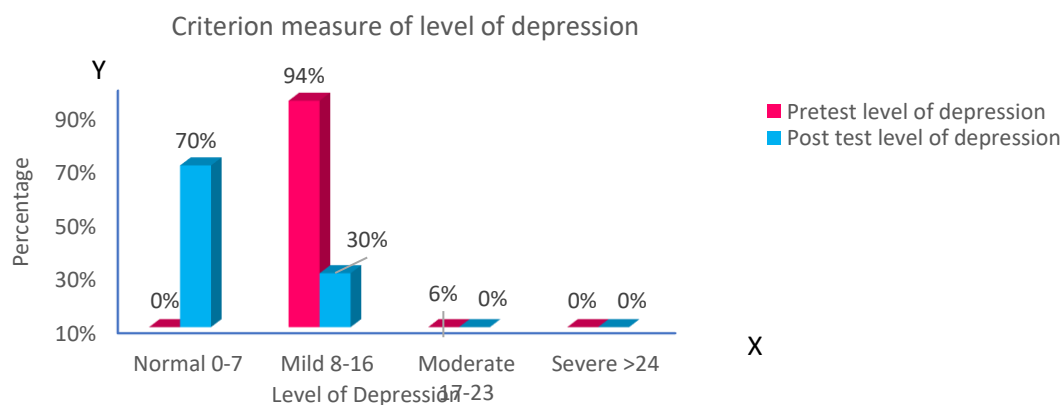
### Assessment of the pre-test quality of sleep and level of depression among elderly people. n=50



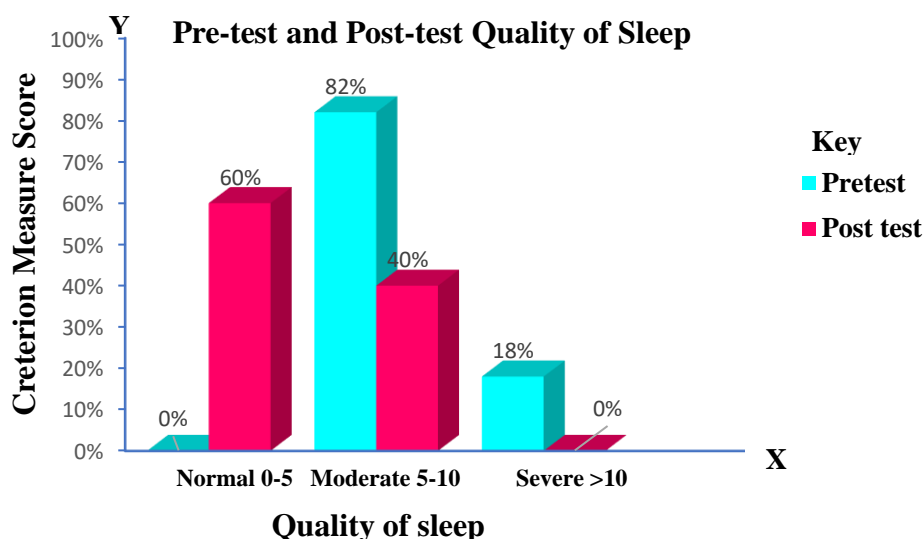
### Assessment the effectiveness of Jacobson's progressive muscle relaxation therapy on quality of sleep and level of depression among elderly people. n=50



### Criterion measure of level of depression elderly population residing in selected old age homes.



**Criterion measure related to Pre-test and Post-test quality of sleep among elderly people in Research group as per Sociodemographic Variables.**



**Correlation between Quality of Sleep and level of Depression in elderly people in research group. n=50**

Depression	Mean±SD	r value
Pretest	10.6±2.96	1
Post test	6.9±2.34	0.838761
Quality of sleep	Mean±SD	
Pretest	8.4±2.30	0.305056
posttest	5.2±1.55	0.173137

**\*\*Positive correlation and Significance at <0.05 level**

**Correlation between Pre-test and Post test Quality of sleep and level of Depression among elderly people in Research group. n=50**

	Pretest	Post Test	r value/p value
	Mean score		
Level of Depression	10.6	6.9	0.83 0.000**
Quality of sleep	8.4	5.2	0.58 0.000**
	r value/p value	r value/p value	
	0.31 0.05*	0.21 0.05*	

**\*\*Positive correlation and Significance at <0.05 level**

**Association between quality of sleep and level of depression with selected demographic variables.**

Present study reveals that there is significant association between Quality of sleep and Level of depression with sociodemographic variables i.e Age, Gender, Occupation and Education.

## CONCLUSION

The present study was related to assessment of the effectiveness of Jacobson's progressive muscle relaxation therapy on quality of sleep and level of depression among elderly people residing in selected old age homes, Himachal Pradesh". A sample of 50 elderly people were included in the research group. The same research group underwent a pre-test and received an intervention. After 21days of Jacobson's muscle relaxation therapy followed up till 28<sup>th</sup> day provided to the

elderly group. Post-test was conducted on 30<sup>th</sup> day from the group. The study findings revealed that there was significant reduction in level of depression as well as improvement in quality of sleep-in elderly people residing in old age homes. Providing muscle relaxation therapy to elderly reduce level of depression and improves quality of sleep. Ultimate goal of the study was to reduce level of depression, improves quality of sleep and enhance their wellbeing.

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