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To Compare the Effectiveness of Jacobson's Relaxation Techniques and Mitchell's Relaxation Techniques along with Diaphragmatic Breathing on Insomnia in Elderly Individuals

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Abstract:

- ***Background of the Study:***
The inability to get enough or quality sleep, along with trouble falling or staying asleep and frequent early morning awakenings, is known as insomnia. The causes of insomnia include disrupted sleep cycles, bad sleeping habits, physical and mental health conditions, pain, drug side effects, neurological issues, and stressful life events. Relaxation treatments, such as Jacobson's progressive therapy and Mitchell's physiological approach, can reduce stress and calm the entire body. Jacobson's therapy involves sequentially tightening and relaxing specific muscle groups, whereas Mitchell's method controls autonomic nerve activity via reciprocal inhibition and diaphragmatic breathing.

- ***Method:***
A Comparative study done with a total number of 70 subjects using convenient sampling technique with inclusion criteria age above 50 years, patients having primary insomnia. Subjects who had sleep disorder other than insomnia should be excluded. The sampling size of the study (n= 70) subjects for a period of 2 weeks.

- ***Result:***
The results revealed significant improvement among Insomnia patient in the Elderly individuals. According to this study, the p-value is less than 0.0001, which is statistically significant.

- ***Conclusion:***
This study found that among elderly patients with insomnia, Jacobson's relaxation technique and diaphragmatic breathing proved to be more beneficial than Mitchell's relaxation approach and diaphragmatic breathing.

Keywords*: Insomnia, Relaxation Techniques, Insomnia Severity Index, Elderly People.*

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I. INTRODUCTION

In general, insomnia is defined as not feeling satisfied with the amount or quality of sleep. One or more of the following are often present in conjunction with this: trouble getting asleep, trouble staying asleep, trouble falling back asleep after awakenings, trouble falling asleep in the morning and trouble sleeping again.[1] The causes of insomnia include disrupted sleep cycles, bad sleeping habits, physical and mental health conditions, pain, drug side effects, neurological issues, and stressful life events. [2]

Insomnia is a prevalent sleep disorder among elderly individuals, often associated with broad health outcomes and reduced QOL. With the aging population on the rise, addressing effective interventions for insomnia becomes imperative. The Jacobson Relaxation Technique, Mitchell's Relaxation Technique, and diaphragmatic breathing have shown promise in promoting relaxation and alleviating insomnia. Comparing how well these methods work to improve sleep quality in senior citizens is the goal of this randomized controlled experiment (RCT).

Non-pharmacological approaches, particularly relaxation techniques, have garnered attention as safer alternatives. Among these techniques, the Jacobson Relaxation Technique, Mitchell's Relaxation Technique, and diaphragmatic breathing have shown promise in promoting relaxation and improving sleep outcomes. This randomized controlled trial (RCT) seeks to address this gap by systematically comparing the efficacy of Jacobson Relaxation Technique, Mitchell's Relaxation Technique, and diaphragmatic breathing in improving sleep quality and related outcomes in the elderly population.

At least occasionally, one-third of the general population exhibits signs of sleeplessness. Insomnia is defined as difficulty sleeping or maintaining asleep after getting up during the night or earlier than desired or necessary. These concerns are referred as difficulty in sleeping, difficulty falling asleep, and early morning awaking.[3] Sleep disruption is a frequent and distressing problem in terminally ill patients. Restless nights can exacerbate symptoms such as pain, despair, or anxiety and have a negative effect on life satisfaction. Males were less likely than females to suffer from sleeplessness.[4] This is supported by the literature, which also notes that being a woman is thought to be a risk factor for the development of insomnia. For terminally sick patients, insomnia has multiple causes, and it is believed that a combination of psychological and physical elements play a major role in its etiology.[5]

Over 50% of elderly persons report trouble starting or staying asleep. Insomnia is more common in the elderly than in the younger population. In the elderly, the total incidence of insomnia symptoms ranges from 30% to 48%,whereas the prevalence of insomnia problem ranges from 12% to 20%. [6] Addressing this concern, our study delves into the comparative efficacy of three relaxation techniques—Jacobson, Mitchell's, and diaphragmatic breathing—aiming to illuminate their unique contributions in alleviating insomnia among elderly individuals. As the global demographic shifts towards an aging population, personalized and evidence-based interventions become paramount. By scrutinizing these techniques within a randomized controlled trial, we aspire to unveil insights that guide healthcare practitioners and individuals towards tailored, effective solutions for managing insomnia in the elderly.

Anxiety, pain, and depression are common in older adults with insomnia symptoms. Thus, early therapies targeting moderate sleep complaints may be able to postpone the onset of several morbidities in older persons, as well as the clinical insomnia in the population most at risk. In order to help people, relaxation techniques are therapeutic exercises that aim to reduce stress anxiety. People who use relaxationtechniques can better ma nage their daily stress as well asstress caused by a variety of medical conditions, such asheart disease and pain. [7]

In the early 20th century, Dr. Edmund Jacobson established the Jacobson Relaxation Technique, stands as a foundational method in the realm of progressive muscle relaxation. This technique revolves around the premise that physical relaxation can positively impact mental well-being. The Jacobson Relaxation Technique is widely employed as a stress management tool. By systematically releasing tension from different muscle groups, individuals can experience a profound sense of relaxation, helping to counteract the physiological and psychological effects of stress. Regular practice has been shown to reduce symptoms of anxiety by promoting a calmer physical and mental state. The heightened awareness of muscle tension allows individuals to intervene at the early signs of anxiety, preventing its escalations.

Mitchell's Relaxation Technique, developed by psychologist Dr. Roger Mitchell, represents a distinct approach to achieving relaxation by combining elements of guided imagery and autogenic training. In Mitchell's technique, guided imagery is employed to evoke mental images that facilitate relaxation and tranquility. Mitchell's Relaxation Technique, with its incorporation of guided imagery and autogenic training, is particularly effective in reducing anxiety and stress. Mitchell's technique's ability to induce a relaxed state makes it beneficial for improving sleep quality. Guided imagery promotes a mental environment conducive to sleep, while autogenic training contributes to physiological relaxation, aiding those with sleep difficulties. By fostering a positive mental state through guided imagery, Mitchell's Relaxation Technique contributes to overall emotional well-being. The technique has applications in managing performance anxiety, such as public speaking or athletic performances. The relaxation induced by the method can help individuals cope with the physical and mental challenges associated with performance-related stress.

Both the Jacobson Relaxation Technique and Mitchell's Relaxation Technique, while distinct in their approaches, share a common goal of promoting relaxation and well-being. The choice between them may depend on individual

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preferences, therapeutic goals, or the specific context in which they are applied.

Jacobson's relaxation technique is aform of treatment t hat involves sequentially tightening and releasing of specific muscle groups. Progressive relaxation therapy is another name for it. Focusing on certain places and tensing and then relaxing them. [8] Mitchell's method of physiological relaxation is based on reciprocal inhibition and incorporates controlled isotonic contractions together with diaphragmatic breathing. [9] The aging population represents a demographic shift with profound implications for healthcare systems worldwide. Globally, there will be 2 billion people over the age of 60 by 2050, according to World Health Organization predictions, highlighting the urgency of addressing health concerns specific to this age group. Among these concerns, sleep disturbances, particularly insomnia, present a considerable challenge. Insomnia prevalence increases with age, affecting a substantial proportion of the elderly population, and its consequences extend beyond mere sleep deprivation, encompassing cognitive decline, compromised immune function, and an elevated risk of chronic diseases. Among these approaches, relaxation techniques have gained attention for their potential to address the multifaceted nature of insomnia by targeting both physiological and psychological aspects of sleep disturbances.

Diaphragmatic breathing is characterized as breathing in deeply and slowly through the nostrils while moving the chest as little as possible with one hand on the chest and the other on the abdomen. It helps to strengthen the diaphragm muscle and relaxes the body, allowing people to fall asleep more quickly. It influences the brain, cardiovascular, pulmonary, and gastrointestinal systems via autonomic nerve function modulation.

To assess the degree of insomnia throughout the day and at night, the simple Insomnia Severity Index (ISI) was developed. The various forms, degrees, and effects of insomnia are assessed using the seven-item ISI self-report questionnaire. A 5-point scale was used to gauge how seriously the participant felt their insomnia problem had gotten during the previous two weeks, both during the day and at night[12.]

Despite the growing interest in non-pharmacological interventions, there exists a notable gap in understanding the relative effectiveness of specific relaxation techniques in the context of elderly insomnia. The Jacobson Relaxation Technique, founded on progressive muscle relaxation, and Mitchell's Relaxation Technique, incorporating guided imagery and autogenic training, represent distinct approaches. Additionally, diaphragmatic breathing, characterized by deep, controlled breathing, has shown promise in promoting relaxation. This study, therefore, undertakes a rigorous examination through a randomized controlled trial, aiming to contribute evidence that informs healthcare practices, improves patient care, and ultimately addresses the burgeoning health challenge of insomnia in the aging population. In summary, this study is embedded in the broader narrative of global aging, recognizing insomnia as a significant health concern among the elderly. By systematically comparing the Jacobson Relaxation Technique, Mitchell's Relaxation Technique, and diaphragmatic breathing, the research aims to provide actionable insights that contribute to the development of targeted and effective non-pharmacological interventions, thereby advancing the overall well-being of the aging population.

II. METHODS:

Total of 70 participants were selected according to the inclusion and exclusion criteria and the participants were recruited from orphanage and they were explained about treatment safety and simplicity of theprocedure and written consent were filled and they were randomly allocated into two groups.

- *Group A*

With 35 participants received Jacobson relaxation technique given for 15 mins ,2times a day for 2 weeks along with Diaphragmatic breathing.

- *Group B*

With 35 participants received Mitchell's relaxation technique given for 15 mins, 2 a day for 2 weeks along with Diaphragmatic breathing. All subjects completed a pre-test measurement with the Insomnia Severity Index questionnaire, which was then repeated at the end of two weeks.

III. INTERVENTION:

➢ *Jacobson Relaxation Technique:*

- *Step 1:*

Take a comfortable seat or lie down. There should ideally be few outside distractions in the area.

- *Step 2:*

Starting with the feet, tense the muscles there and curl the toes beneath. Hold for five seconds, then release gradually over a ten-second period. As you let go, pay special attention to how you feel relaxed and like tension is being released.

- *Step 3:*

Squeeze the muscles in your lower legs. Give a gentle squeeze for ten seconds, then hold for five more. Observe closely how you feel when you let go of stress and how you feel relaxed.

- *Step 4:*

Tighten the muscles in your hips and buttocks. Hold for five seconds, then release slowly for 10. As you release, pay particular attention to how you feel relaxed and free of tension.

- *Step 5:*

Tighten your muscles in your chest and stomach. Five seconds of holding, then 10 seconds of carefully releasing. As

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you release, pay particular attention to how you feel relaxed and free of tension.

- *Step 6:*
  Make sure your shoulder muscles are tight. After holding for five seconds, then 10 seconds of carefully releasing. As you release, pay particular attention to how you feel relaxed and free of tension.

- *Step 7:*
  Squeeze your eyelids tight and tense your face muscles. After holding for five seconds, release carefully for 10 seconds.. Pay attention to how the tension is released and how you are feeling relaxed during the release.

- *Step 8:*
  clench your hand's muscles into a fist. Five seconds of holding, then 10 seconds of carefully releasing. As you release, pay particular attention to how you feel relaxed and free of tension.

Fig 1 Jacobson Relaxation Technique

➢ *Mitchell's Relaxation Technique:*
Antagonist group of muscles relax reciprocally and equally to the contraction of agonistgroup of muscles.

➢ *Instructions:*

- *Step 1:*
  patients should lie on supine position and one pillow under the head and otherunder the knees.

- *Step 2:*
  SHOULDER - Make your neck longer by pulling your shoulders "toward your feet" and away from your ears. Take hold of Consider how much more room there is between your shoulders and your ears now that they are lower down. Unwind.

- *Step 3:*
  Elbows - With your arms supported, move them slightly away from your sides to extend your elbow joints. This is known as "elbows out and open." Take hold of Using the tactile sense of your skin, feel where your elbows are and how much pressure your arms are applying on them. unwind

- *Step 4:*
  Hands - Stretch out your fingers and thumbs while supporting your wrists with them "Fingers and Thumbs Long and Supported." Take hold of Allow your thumbs and fingers to return to their supporting position. unwind

- *Step 5:*
  Hips - “Turn your hips outwards” - feel yourthighs and legs roll outwards. Hold
Feel that your legs haverolled outwards. Relax

- *Step 6:*
  Knees - Gently move and straighten your knees till you are comfortable. Hold Feel the relaxation in your knees. Relax

- *Step 7:*
  Feet - Point your toes lightly and bend your ankles downward to push your feet away from your face. Take hold of with all of the lower leg muscles relaxed, notice how much softer the ankle joints are in your feet. unwind

- *Step 8:*
  Press your body gentlytowards the bed Hold
Feel the pressure ofthe body Relax

- *Step 9:*
  Feel how your neck moves as you "press your head into the pillow or chair." pause Feel your head's weight in the void you've created. Unwind.

- *Step 10:*
  Inhale deeply; when you exhale, feel your stomach expand; then, exhale comfortably twice.

- *Step 11:*
  Jaw - "Drag your jaw down" means to loosen your teeth inside your mouth and slowly lower it; do not open your mouth. Relax by feeling the spaciousness.

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- *Step 12:*

Eyes- " Keep your eyes closed." Be mindful of the darkness while your eyes are closed. Relax.

Fig 2 Mitchell's Relaxation Technique

➢ *Diaphragmatic Breathing:*

- *Step 1: Posture*

Adopt a comfortable seated or lying position with proper posture—a straight back promotes effective diaphragmatic breathing.

- *Step 2: Hand Placement*

Place one hand on your chest and the other on your abdomen, just below the ribcage. This tactile feedback enhances awareness of breathing patterns.

- *Step 3: Inhalation*

Inhale slowly and deeply through your nose. Direct the breath downward, allowing your diaphragm to move and your abdomen to expand. Focus on creating a full and controlled inhalation.

- *Step 4: Exhalation*

Exhale slowly and completely through your mouth or nose. Feel your abdomen fall as you expel air, emphasizing a steady and controlled release.

- *Step 5: Rhythm*

Establish a rhythmic breathing pattern, aiming for a cycle of approximately 4 seconds for inhalation and 4 seconds for exhalation. Consistency in rhythm fosters a sense of calm and relaxation.

- *Step 6: Mindful Awareness*

Maintain mindfulness of your breath, concentrating on the rise and fall of your abdomen. If you notice chest movement, redirect the breath to originate from the diaphragm, optimizing the diaphragmatic breathing experience.

- *Step 7: Practice Regularly*

Engage in diaphragmatic breathing for 5-10 minutes initially, gradually extending the duration as comfort and familiarity with the technique grow. Regular practice enhances mastery and the integration of diaphragmatic breathing into daily life.

This comprehensive guide unveils the intricate procedures of the Jacobson Relaxation Technique, Mitchell's Relaxation Technique, and Diaphragmatic Breathing. Each method, with its distinct characteristics, contributes to the evolving landscape of non-pharmacological interventions for stress and sleep disorders. Regular practice, mindfulness, and the integration of these techniques into daily routines empower individuals to harness the profound benefits of relaxation for both mind and body.

The Insomnia Severity Index (ISI), a simple measure, was developed to assess the severity of insomnia throughout the day and at night. The various forms, severity levels, and consequences of insomnia are assessed using the seven-item ISI self-report questionnaire. Typically, the "last month" is the recall period. The severity of sleep issues related to start, maintenance, and early morning awakenings is evaluated, as is sleep dissatisfaction, how much sleep problems interfere with daytime performance, how noticeable the sleep problems are to others, and the anguish the problems cause. The ISI is a seven-item, scored questionnaire. The participant's perception of how bad their insomnia had been during the past two weeks—during the day and at night—was measured using a 5-point Likert scale.

In many different therapeutic contexts, the ISI has been widely utilized, including sleep clinics, mental health facilities, and primary care, contributing to a standardized and efficient means of assessing insomnia symptoms. Its psychometric properties, including reliability and validity, have been well-established, further solidifying its status as a key instrument in the evaluation of insomnia severity.

IV. DATA ANALYSIS & RESULTS:

The data obtained is tabulated and analyzed. Mean and Standard Deviation (SD) are the parameters used. The significant changes between pre-test and post-test values were assessed using unpaired t- test through SPSS software.

- The Pre-test mean of Insomnia Severity Index Group A (Jacobson relaxation technique along with diaphragmatic breathing) showed 13.83, the standard deviation 4.50 whereas the Post-test mean value of Insomnia Severity Index Group A (Jacobson relaxation technique along with diaphragmatic breathing) showed 5.89, the standard deviation 3.49.

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- This showed statistically significant in p-value of less than 0.0001
- The Pre-test mean of Insomnia Severity Index Group B (Mitchell's relaxation technique along with diaphragmatic breathing) showed 13.63, the standard deviation 5.05 whereas the Post-test mean of Insomnia Severity Index Group B (Mitchell's relaxation technique along with diaphragmatic breathing) showed 10.34, the standard deviation 4.81.
- This showed statistically significant in p-value of less than 0.0001.
- Post intervention of Insomnia Severity Index Group A who received (Jacobson relaxation technique along with diaphragmatic breathing) for 2 weeks Mean (5.89), the standard deviation (4.50) showed better results when compared to Group B who received (Mitchell's relaxation technique along with diaphragmatic breathing) for 2 weeks Mean (10.34), the standard deviation (4.81).
- This showed statistically significant in p-value of less than 0.0001.

V. DISCUSSION:

The objectives of this study are multifaceted, with the purpose of addressing critical factors connected to the comparative effectiveness of Jacobson relaxation technique with diaphragmatic breathing, as well as Mitchell's relaxation technique with diaphragmatic breathing on elderly peoples who suffering from insomnia.

➢ *Aida Jasour et.al. (2023)*

Stated that the current study compared the effects of Benson's technique and Mitchell's technique on the QOL of elderly nursing home residents. To date, no study comparable to the current one has been undertaken. The current study's findings suggested that implementing MRT and BRT in the intervention groups increased QOL. He stated that there is limited evidence that relaxation techniques improve the QOL of the elderly, and no comparative research has specifically explored this population. It is advised that the effectiveness of relaxation therapy on quality of life be studied throughout time of 3 to 6 months.

According to **Amirova et al.,** the Mitchell relaxation intervention was successful in lowering pain, exhaustion, and sleep issues while also improving QOL of the fibromyalgia patients. Relaxation methods are used to release muscle tension, which reduces physical pain, improves physical performance and mental health, and so improves quality of life. By stabilising the autonomic nervous system and managing one's emotions in tense and stressful situations, relaxation exercises increase an individual's perception of health. She also stated that Relaxation is the creation of a condition of general sleep, which is the inverse of tension, stress, and depression.

➢ *Olivia Reynolds et.al. (2019)*

Stated that the comparative effectiveness of relaxation techniques on insomnia in elderly individuals, the outcomes of this study offer meaningful implications for both research and clinical practice. The Jacobson Relaxation Technique appears to have a strong therapeutic impact, as evidenced by the statistically significant and persistent decreases in insomnia severity scores among participants. while the Jacobson Relaxation Technique may emerge as a favorable option, it is essential for healthcare practitioners to consider the unique needs and preferences of each individual.

➢ *Rasha Alsayed Ahamed et.al. (2023)*

Stated that there was a statistically significant difference in pain scores based on age and education level. According to the researcher, this discovery can be related to the fact that patients can realise the necessity of engaging in health-promoting behaviors with education. He also stated that the outcome that there is a relationship between pain and the other study factors is logical since when the participant experiences pain and finds it difficult to fall asleep, reducing their quality of sleep.

➢ *Vignesh Srinivasan et.al. (2023)*

Concluded that Both yoga and Jacobson's relaxation approach were found to be effective in increasing sleep-in nurse having insomnia, while yoga proved to be more effective than Jacobson's relaxation approach. Anxiety contributes to the pathophysiology of insomnia, according to a study that looked at a variety of physiologic arousal indicators in insomniacs. Both the peripheral (autonomic) and central (cortical) nerve systems can be affected by physiological conditions. Several theories contend that anxiety during insomnia involves both mental as well as psychological activities.

➢ *Patel Margi et.al. (2020)*

Concluded that Jacobson progressive relaxation technique is effective to improve sleep quality among elders. The sleep quality was significantly improved with Jacobson progressive relaxation technique among elderly.

➢ *Wedad Saber Shafek Abdelkhalek et.al. (2023)*

Stated that Burn treatment, as well as its effect on patients, increases their degree of anxiety and sleep disturbance prior to Jacobson's relaxation Method. The anxiety level was lowered and sleep quality increased following the adoption of Jacobson's Relaxation Technique, demonstrating the technique's success and effectiveness through before and post-Jacobson's Relaxation Technique intervention.

➢ *Dyah G.R Kareri et.al.(2020)*

Concluded that the PSQI questionnaire was used to assess sleep quality in the elderly and consisted of seven components: specific quality of sleep, sleep latency, Sleep duration, sleep efficiency, sleep disruptions, sleeping pill use, and activity disruption. The JPMR exercise improved subjective sleep quality as well.

➢ *Mitra Habibollahpur et.al. (2019)*

According to the results of the present study, Benson's relaxation method can raise the overall and some of the subscales measuring sleep quality (Individual factors: sleep hygiene, insomnia latency, duration of sleep, habitual

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sleep efficiency, and dysfunction during the day) among older persons who reside in the community.

- *Dhawal Patel et.al. (2018)*

Stated that Insomnia is particularly common among older people. Clinicians can evaluate and treat insomnia in our rapidly ageing population by using the history and physical examination, as well as insomnia scales population. When compared to hypnotic drugs, behavioural and cognitive behavioural therapies provide very effective longer-term treatment and are suggested as first-line treatment alternatives for insomnia in older persons.

Based on the collective findings from the mentioned studies, the effectiveness of relaxation techniques, particularly It is an important endeavor to use both Mitchell's and Jacobson's relaxation techniques along with diaphragmatic breathing on older patients. As our aging population grapples with various health challenges, including insomnia, non-pharmacological interventions gain prominence. Jacobson's method, rooted in systematic muscle tension and release, Mitchell's technique incorporating guided imagery, and diaphragmatic breathing offer diverse approaches. Understanding their relative effectiveness in mitigating insomnia can significantly impact the well-being of older individuals. This study holds the promise of not only contributing to scientific knowledge but also offering practical insights for healthcare providers and individuals seeking tailored strategies to enhance sleep quality in the elderly. By delving into these relaxation techniques, we aspire to unlock pathways to improved sleep, positively influencing the overall health and vitality of our aging population.

VI. CONCLUSION

In undertaking a rigorous investigation into the comparative effectiveness of the Jacobson Relaxation Technique along with diaphragmatic breathing, Mitchell's Relaxation Technique along with diaphragmatic breathing on insomnia in elderly individuals, this study has yielded valuable insights into non-pharmacological interventions for sleep disturbances in the aging population. The findings indicate that all two relaxation techniques demonstrated statistically significant improvements in insomnia severity, with participants experiencing notable reductions in sleep difficulties. However, subtle nuances emerged in the comparative efficacy, suggesting that tailoring interventions based on individual preferences and needs may enhance therapeutic outcomes.

Upon thorough examination of the data and statistical analysis, it becomes evident that the Jacobson Relaxation Technique along with diaphragmatic breathing exhibits a comparative advantage over Mitchell's Relaxation Technique along with diaphragmatic breathing in alleviating insomnia among elderly individuals. The participants who underwent the Jacobson Relaxation Technique along with diaphragmatic breathing interventions consistently demonstrated more substantial reductions in insomnia severity scores compared to those utilizing Mitchell's Relaxation Technique along with diaphragmatic breathing. However, the nuanced differences observed suggest that, in the context of this study, the Jacobson Relaxation Technique along with diaphragmatic breathing emerges as a preferential option for addressing insomnia in the elderly.

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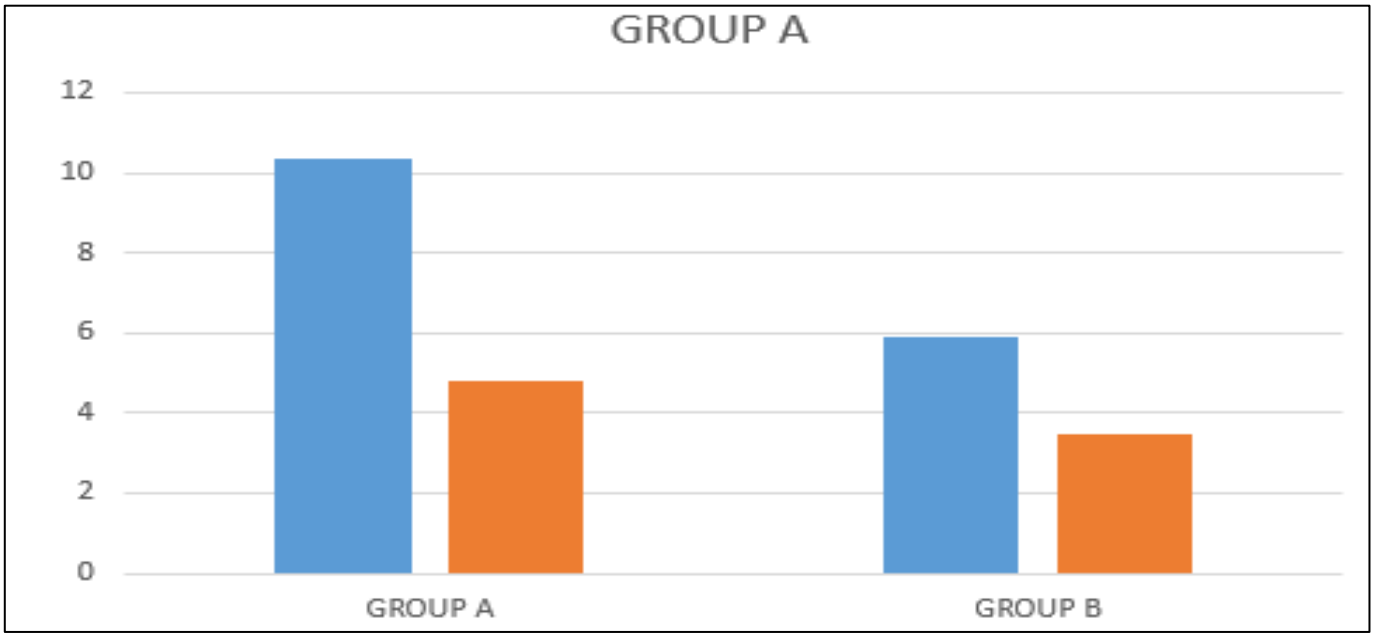
ILLUSTRATIONS:

Table 1 Comparison of Pre Test and Post Test Values of Insomnia Severity Index Group a Jacobson Relaxation Technique Along with Diaphragmatic Breathing

NPRS	MEANVALUE	SD VALUE	SEMVALUE	T VALUE	P VALUE
Pretest	13.83	4.50	0.76	5.0705	<0.0001
Post test	5.89	3.49	0.58		



Graph 1 Comparison of Pre Test and Post Test Values of Insomnia Severity Indexgroup a Jacobson Relaxation Technique Along with Diaphragmatic Breathing

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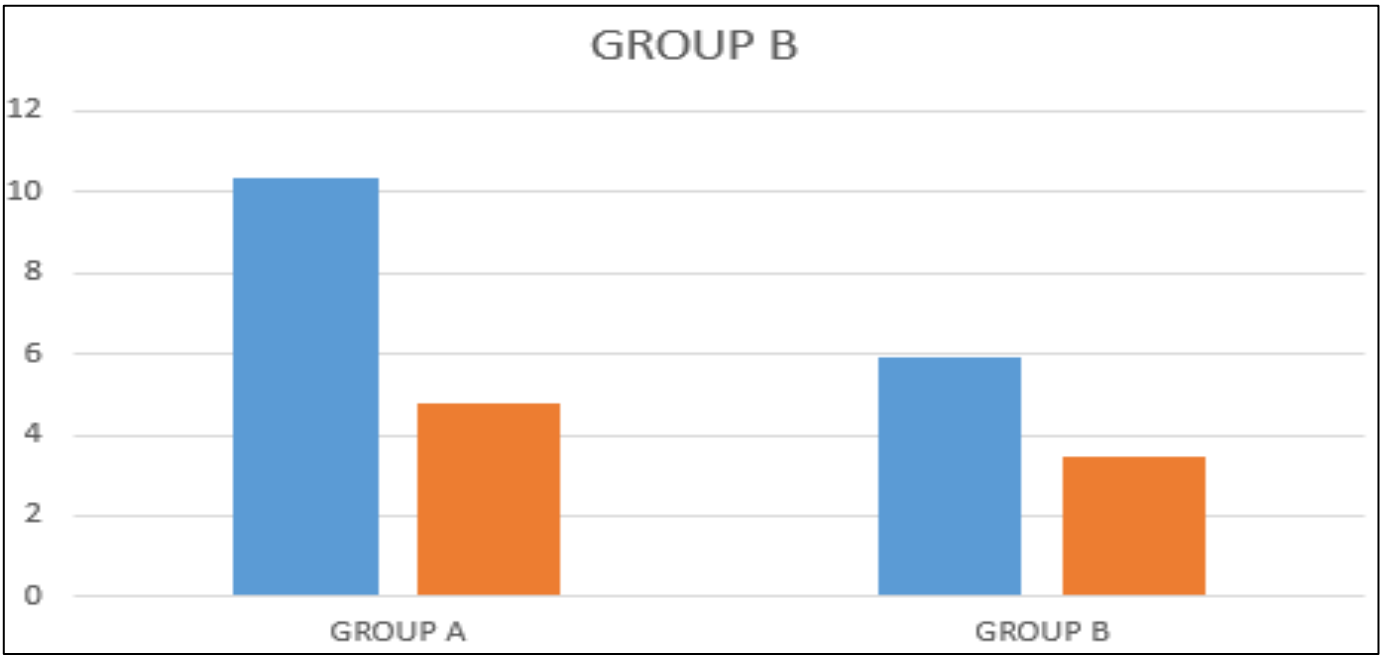
Table 2 Comparison of Pre-Test and Post- Test Values of Insomnia Severity Index Group B Mitchell's Relaxation Technique Along with Diaphragmatic Breathing

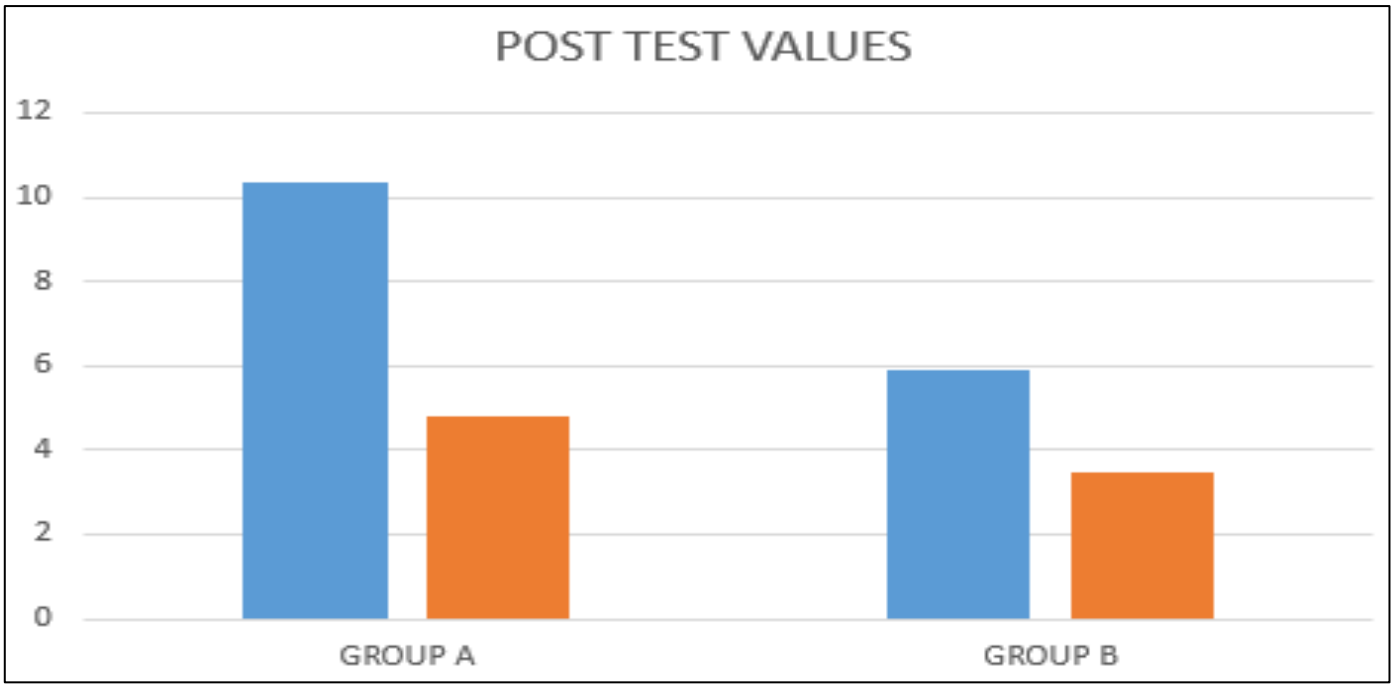
NPRS	MEANVALUE	SD VALUE	SEMVALUE	T VALUE	P VALUE
Pretest	13.63	5.05	0.85	2.7869	<0.0001
Post test	10.34	4.81	0.81		



Graph 2 Comparison of Pre-Test and Post-Test Values of Insomnia Severity Index Group B Mitchell's Relaxation Technique Along with Diaphragmatic Breathing

Table 3 Comparison of Post-Test Values of Group a and Group B for Insomnia Severity Index

NPRS	MEANVALUE	SD VALUE	SEMVALUE	T VALUE	P VALUE
Pretest	10.34	4.81	0.81	4.4300	<0.0001
Post test	5.89	3.49	0.58		



Graph 3 Comparison of Post-Test Values of Group a and Group B for Insomnia Severity Index