

THE EFFECT OF ANULOM VILOM PRANAYAMA ON LEVELS OF DEPRESSION IN GERIATRIC POPULATION IN SELECTED AREAS OF HUTTI, RAICHUR DISTRICT, KARNATAKA

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ABSTRACT

Arthritis, obesity, depression, and other health issues plague the elderly. Pranayama is a stress-relieving technique that also helps in relaxation. The goal of this study was to see how well Pranayama can help those who are depressed. Ethical clearance has been completed. Obtained the participants' consent. After meeting the inclusion and exclusion criteria, 60 geriatric subjects (55-75 years old) were recruited from the selected areas of Hutti, Raichur District of Karnataka. It was a study that was akin to a controlled experiment. Group A (experimental) and group B (control) were the two groups of participants (control). For 12 weeks, group A Received Pranayama such as anulomaviloma and brahmari, whereas group B received standard breathing exercises. Results: The unpaired t-test was used to analyse the data. Pranayama is more beneficial than breathing exercises in lowering the depression (group A – p-value 0.04, group B – p-value 0.06). Conclusion: Pranayama can be the best option in terms of effectiveness in treating depression among elderly people.

Key words: Pranayama, Anuloma Viloma, Brahmari, Pranayama, Depression, Geriatric Population.

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INTRODUCTION

Grade 1: 55-65 years old, Grade 2: 65-75 years old, and Grade 3: over 75 years old. The process of development begins with the onset of old age and culminates with conception. Environmental causes can accelerate ageing. As people grow older, diseases become increasingly common. Exercise has been linked to gain in cognitive function and stress and anxiety reduction, enhancing the mental health and social participation. It enhances the lungs' flexibility, minimizes secretion collection in the lungs, reduces breathing work, and improves ventilation [1]. Pranayama is a technique for controlling and modulating breath and meditation, which is a method for achieving a deep state of rest while remaining alert[2]. It also aids in eliminating toxins and strengthening the immune system by improving blood and lymphatic circulation. Beyond the physical, Pranayama has other anti-aging advantages. Emotional, spiritual, and social benefits are also an additional benefits. It also helps

relieve tension and depression, and because it is so easy to do, it may be done at any time and in any location, with no special equipment or attire[3]. Pranayama increases one's quality of life as well [4]. Anuloma Viloma is a breathing technique that uses alternate nostrils to balance physical and mental energies. The benefits include ensuring a sufficient supply of oxygen and removing CO2. Toxins in the blood are removed. It aids in the reduction of stress, anxiety, sadness, and a variety of other ailments. It clears the pranic energy lines of any blockages. Bhramari Pranayama relieves agitation, frustration, and anxiety in mind as well as rage. It aids in the reduction of blood pressure and improves concentration. Provide headache relief. In a group of older adults, yoga practice enhanced many elements of sleep. Regular yoga posture practice can help geriatrics improve gait function and prevent age-related changes in hip and knee joint range of motion[6]. This study aimed to explore how Pranayama and breathing exercises brought significantly positive changes in the levels of depression among the geriatric population.



Aim and Objective:

This study aimed to compare and measure the effects of Pranayama and breathing exercises on depression in elderly people.

MATERIAL AND METHODS:

Study Size:60 sample

Subject Setting: Subjects in the selected areas of Hutti, Raichur District, Karnataka

Study Design: Quasi-experimental research design

MATERIALS:

The Geriatric Depression Scale is a tool that can be used to assess depression in older people. The peak flow metre is a device that measures how much water is flowing at any given time, scribble, Graphite

Criteria for Entry:

Between the ages of 55 and 75, a physically fit senior age group, both male and female,

The study looked at those who were mildly depressed or severely depressed.

Criteria to be excluded:

1. Elderly people with a neurological or psychological problem.
2. Elderly with musculoskeletal issues such as back discomfort, osteoarthritis, and so on.

The Geriatric Depression Scale is a scale that measures how depressed a person is as they get older (gds30) gds30 gds30 g Inter-score Reliability-0.94. 0.80 Cronbach's alpha Specificity is 0.95, and sensitivity is 0.97. GDS-30 was a credible test with 30 questions.

Procedure: used a random sample approach to divide the subjects into two groups.

Group A (n=30) and Group B (n=30) are two groups of thirty peopl. The participants' consent was obtained .The inclusion and exclusion criteria were used to pick the subjects. The Geriatric Depression Scale was completed by each subject (GDS). The study focused on people between the ages of 55 and 75 years old. Group A had a mean age of 69.9 years, while group B had 70. the p-value was > 0.15, which is considered significant, there was no significant difference in the age groups included in the study. For 12 weeks, subjects in Group A were administered Anuloma Viloma and Brahmari Pranayama at a frequency of 10- 15 minutes, three times a week. GROUP B consisted of control subjects, were taught traditional breathing techniques such as deep breathing, pursed-lip breathing, thrice weekly for a duration of 12 weeks. On the first day, introduction was given and the technique was described. We kept conducting evaluations and records at the end of the first, sixth, and twelfth weeks. Before and after the 12 weeks, each participant completed the Geriatric Depression Scale (GDS). The paired t-test was used to make statistical analyses. Based on data analysis, we reached at a conclusion.

Measuring the outcome;

Table 1: Comparison between the pre and post-Depression scores reading in group A. Pre-treatment mean 22.80, post-treatment the mean was 17.61 and p-value is 0.04 considered to be significant

	Pre	Post	p-value
Depression	22.80	17.61	0.04

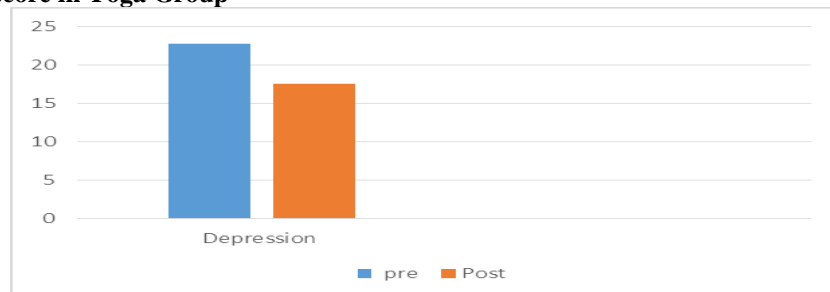
Table No: 2: Comparison between the pre and post depression score reading in group B . Pre-treatment mean was 20.11, and in post-treatment, the mean was 18.20, and the p-value is 0.06, considered to be non-significant

	Pre	Post	P-value
Depression	20.11	18.20	0.06

Table No 3: Comparison between group A and group B Depression scores which shows that p-value is 0.65 considered to be insignificant which shows both groups are effective

Parameter	Pre	Post	P-value
Depression	16.00	18.21	0.65

Graph 1: Depression score in Yoga Group



Graph 2: Depression score in the exercise group



Graph 3: Comparison of group A and group B on Depression



RESULTS:

Group A: The p-value for the depression score is 0.04, indicating that Pranayama is beneficial in lowering depression.

Group B: The p-value for depression scores is 0.06, indicating that breathing exercises were not that effective. When comparing the depression scores of GROUP A and GROUP B, it is clear that Pranayama is more beneficial than breathing exercises.

Results of the data analysis

Using stat three software, data were analyzed using paired t-tests and comparisons using unpaired t-tests.

DISCUSSION:

The elderly population between the ages of 55 and 75 years old, both male and female 60 samples, were separated into two groups, A and B. Group A consists of 30 individuals (15 males and 15 females) who were taught Pranayama. Taught breathing exercises to Group B, which consisted of 30 samples (15 males and 15 females) in the control group. Followed a 12-week exercise and Pranayama. After the intervention, depression levels were lower, demonstrating that Pranayama can help with reduction of depression. Breathing is usually unconscious and is controlled by the neurological system via the

medulla oblongata and pons respiratory centres. The dorsal and ventral groups of neurons in the medulla and the chemotaxis and apneustic centres in the pons are all involved. [8] Pranayama clears the secretions from the airways and serves as a primary physiological stimulus for lung surfactant and prostaglandins production into the alveolar spaces, increasing lung compliance. [9][11] Pranayama increases maximum expiratory pressure and flow rate for a short period. It improves the neuromuscular system by decreasing reaction times. Deep, controlled breathing de-sensitizes sensory nerve endings and lowers environmental allergies. The practice of Pranayama helps to prevent weariness from setting in.

CONCLUSION:

There are a few other variables to think of. In the elderly, Pranayama is more effective than breathing exercises for reducing depression. It helps to relax the mind when done regularly. The sample size was small, which was a drawback. Long-term studies can be carried out to achieve more critical results.

Future research:

Larger sample sizes could be used in future investigations. In individuals with asymptomatic and symptomatic respiratory diseases, can compare the



outcome of the intervention. Might use other lung metrics such as inspiratory capacity, expiratory capacity, total lung

capacity, residual volume, and so on to perform further research.

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