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Efficacy of Yogic Practices on Hemoglobin and Depression Among Geriatric Men

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Abstract: This randomized experimental study aimed to determine the effect of yogic practices on hemoglobin and depression in older men. For the study, Men between the ages of 60 to 70 were selected at random and distributed into treatment and sample group (Control) of 20 people each. It was expected that there would be substantial differences between the older males and the control group on chosen variables such as haemoglobin and depression. Before beginning the training programme, two groups were given preliminary tests on haemoglobin and depression. Treatment group received 60 min yoga practices Monday to Saturday for a total of eight weeks. The Sample Group was not given any intervention. Following the therapy, all patients were tested on the selected dependent variables. Data were analyzed with ANOVA to identify significant changes. The significance threshold was set at 0.05. As a result, it was determined that Yogic Practices were beneficial to elderly men in maintaining haemoglobin levels and reducing depression.

Keywords: Yogic Practices, Geriatric men, Hemoglobin, Depression

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Introduction

In general, the geriatric population is defined as those aged 60 and up. Normally, at this age, numerous systems are pushed to degenerate. Actually, most issues in the elderly are caused by multifactorial situations that may include age-related or disease-related deficits in the system of balance. Geriatric refers to medical treatment for the elderly, a difficult age category to define

accurately. Most people do not require geriatrics experience in their care until they are 70, 75, or even 80 years old. Gerontology is defined as the study of ageing, which includes complete changes in elderly people. Geriatric men are vital for family, business and also for society to guide younger generation, While the majority have decent mental health, but few have mental illness,

Table 1: Analysis of variance of the means of therapeutic group and the control group on haemoglobin (mg/dl)

Test	Yoga Therapeutic Group	Control Group	Degrees of Freedom	F-Ratio
Pre	11.93±0.97	12.17±1.04	1	0.38
			28	
Post	13.10±0.98	11.87±1.01	1	11.48*
			28	
Adjusted Post	13.17	11.80	1	22.76*
			27	

*Significant at 0.05 level of confidence. Table F ratio at 0.05 level, of confidence for df 1 and 28 = 4.2, 1 and 27 = 4.21

neuro problems, high Blood Sugar, hypertension, hearing problems and also osteoarthritis .

This study focused to discover the efficacy of yogic therapy on hemoglobin and depression in senior males. It was predicted that yoga practices would result in substantial variations in haemoglobin and depression among older males compared to the control group.

Delimitations of this study are—(i) The research only included 40 geriatric men aged 60 to 70; (ii) The study was limited to geriatric men residing in Chennai; (iii) The study was limited to the intervention of Yogic therapy only; and (iv) Only Hemoglobin and Depression were used as dependent variables.

Stauder and Thein (2014) and Raisinghani *et al.* (2019) reported that anemia becomes more common with age. Anemia in old age can be caused by a variety of significant underlying diseases. Anemia is a stage where men have less than 130 g/l. Older people can be divided into quartiles or quintiles based on the distribution of Hb levels, which show inverse J-shaped relationships with adverse outcomes. Men with 137 g/l and females with 126 g/l was higher in the mortality as per Cardiovascular Health Study cohort. Thus, the ideal Hb level to be monitored to avoid hospitalization and death.

Ramanathan *et al.* (2017) performed study on 40 elderly women who were randomly assigned

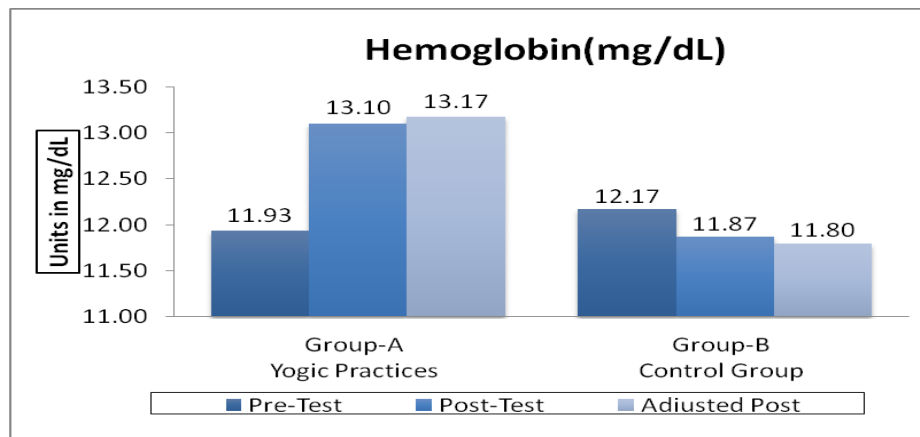
to a yogic treatment and control group assigned rest. A yoga therapy program of 60 min was given twice a week for 12 weeks. This protocol was specifically designed for elderly people with selective practices. Anxiety and depression level were tested after 12 week study period. Data were analysed with inter group comparison, ranges as wells probability its success. Yogic practices reduced anxiety, depression and improved self esteem and self-confidence.

Materials and Methods

This study was designed with 60 Chennai geriatric men between the ages of 60 to 70, were randomly screened and spread into two groups. Group one was scheduled with yogic therapy, while group two served as a control group. Hemoglobin and depression are the dependent variables. Following protocol was designed and trained for eight weeks: (i) Sukshma vyayama, (ii) Sun Salutation, (iii) Trikonasana, (iv) Vrikasana, (v) Janu sirsasana, (vi) Paschimotanasana, (vii) Utthana padasana, (viii) Ardha halasana, (ix) Sethu bandhasana, (x) Bhujangasana, (xi) Shalabasana, (xii) Nadi Shudhi, Kapalabhati Ujjai breathing, and (xiii) Yoga Nidra.

Results and Discussion

The resulting F-value on pretest results of 0.38 was less than the required F-value of 4. This showed that there was no statistically difference



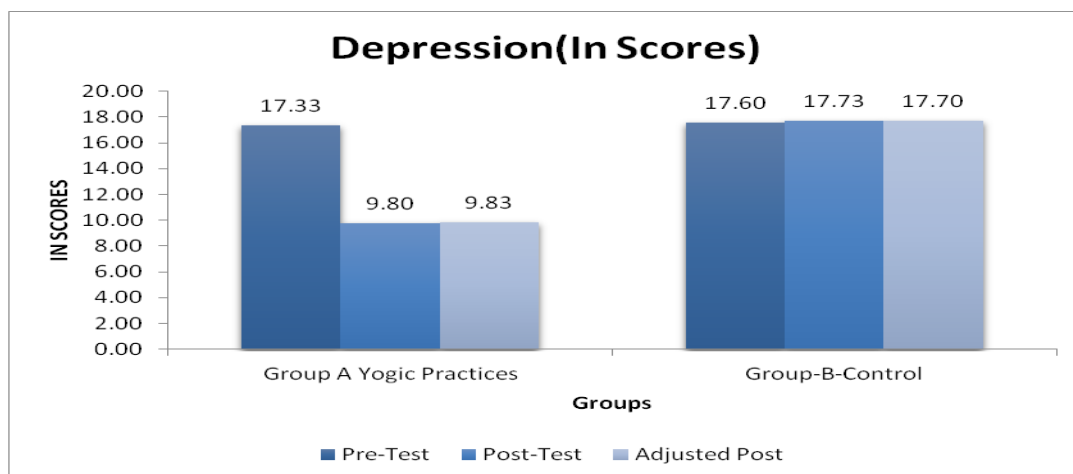
* Significant at 0.05 level of confidence. Table F ratio at 0.05 level, of confidence for df 1 and 28 = 4.2, 1 and 27 = 4.21

Fig. 1: Mean differences in hemoglobin (mg/dl) among the groups.

Table 2: Analysis of variance of the means of therapeutic group and the control group on depression (in scores)

Test	Yoga Therapeutic Group	Control Group	Degrees of Freedom	F-Ratio
Pre	17.33±2.32	17.60±1.94	1	3.88
			28	
Post	9.80±1.89	17.73±1.67	1	147.95
			28	
Adjusted Post	9.83	17.70	1	153.02*
			27	

* Significant at 0.05 level of confidence. (Table F ratio at 0.05 level, of confidence for df 1 and 28 = 4.2, 1 and 27 = 4.21)



* Significant at 0.05 level of confidence. Table F ratio at 0.05 level, of confidence for df 1 and 28 = 4.2, 1 and 27 = 4.21

Fig. 2: Mean differences in depression among the groups.

between pre-test. Examination of the results after the therapy resulting in F-value of 11.48 was higher than the required F-value of 4.21 (Table 1; Fig. 1). Observations of Stauder and Thein (2014) support the above conclusions. Adjusted mean also established the improvement in Hemoglobin due to yogic practices.

The F-value in pre-test results was 3.88, which was less than the required F-value of 4.2. The results after the training showed F-value of 147.95 which was higher than the required F-value of 4.21 (Table 2; Fig. 2). Adjusted means supported the success of the training. The results of the study on depression showed that Group 1 had significant differences as a result of yogic practices. As a result, the hypothesis was accepted with a confidence level of 0.05. The observations of Ramanathan *et al.* (2017) support the above result.

It was proved that yogic practices increased hemoglobin and reduced depression in older men compared to the control group. The tabular results showed that yoga practices reduced depression and increased hemoglobin in geriatrics at a significance level of 0.05.

Conclusion

According to the results, yoga practices increased hemoglobin and reduced depression in older men. Hence yoga techniques are beneficial for older men.

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