



EFFECT OF IRON YOGA AND MEDITATION ON VITAL CAPACITY AMONG THE COLLEGE LEVEL FOOTBALL PLAYERS

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Abstract

The aim of the study was designed to determine the effect of Iron yoga and Meditation on Vital Capacity among the College level football Players. To attain the purpose, Forty five (N=45) inter collegiate football players who have participated in the Calicut University, Kerala football tournaments during the year 2018-2019 were selected randomly as subjects. Their age ranged from 18 to 25 years. The subjects were assigned at random into three groups of fifteen each (n=15). Group-I underwent Yogasana Practice (n=15), Group-II underwent Meditation Practice (n=15) and Group-III acted as Control. The dependent variable selected for this study was Vital Capacity and it was assessed by Spirometer. All the subjects were tested prior to and immediately after the training for the selected variable. Data were collected and statistically analyzed using ANCOVA. Scheffe's post hoc test was applied to determine the significant difference between the paired means. In all the cases 0.05 level of significance was fixed. The results of the study showed that there was a significant difference among all the Experimental groups' namely Yogasana Practices and Meditation Practices. Further the results showed Meditation group was found to have greater impact on the group concerned than the Yogasana group and Control group in enhancing the performance of Vital Capacity.

Keywords: Yogasana Practices, Meditation Practices, Vital Capacity

INTRODUCTION

Yoga is the oldest forms of personal development in existence. Millions around the globe are regular practitioners of yoga which, indeed, seems flexible enough to meet a variety of needs for a variety of people. There is probably no system of physical exercise that can tone muscles and enhance flexibility with less pain and strain. Also, there is probably no safer way to relax and calm the mind than yogic breathing and meditation.

Life is a series of constant physical and mental activities. The fast pace of life is causing more harm than good. Yoga is an ancient system that seems to be just the right medicine for stressed-out people in the twenty first century. In order to lead a happy and prosperous life with utmost harmony in society, yoga can play an important role throughout the world in re-establishing a world characterized with well-being, peace and prosperity (*Sharma, 1984*).

The word “meditation” is derived from the Latin word “*meditari*”, which means “to engage in contemplation or reflection.” The word meditation comes from both Greek and Latin root word meaning medicine. Further, it refers to a family of self-regulation practices that focus on training attention and awareness in order to foster general mental well-being and development and / or specific capacities such as calmness, clarity, and concentration.

Meditation healing the body of disease by proper diet, right living, and recharging the body with God's all-powerful cosmic energy; removing in harmonies and inefficiency from the mind by concentration, constructive thinking, and cheerfulness; and freeing the ever-perfect soul from the bonds of spiritual ignorance by meditation. Meditation is the seventh limb of Astanga yoga. Meditation in yogic terminology stands for that state of mind-stuff in which all thinking is pinned on the contemplation of the omnipresent and the omniscient Ishwara.

Vital Capacity is the greatest volume of air that can be expelled from the lungs after taking the deepest possible breath. A person's vital capacity can be measured by a wet or regular spirometer other physiological measurements, the vital capacity can help make a diagnosis of underlying lung disease. Furthermore, the vital capacity is used to determine the severity of respiratory muscle involvement in neuromuscular disease, and can guide treatment decisions in Guillain normal adult has a vital capacity between 3 - 5 litres. A human's vital capacity depends on age, sex, height, mass and ethnicity. Lung volumes and lung capacities refer to the volume of the air associated with different phases of the respiratory cycle. Lung volumes are directly measured, whereas lung capacities are inferred from volumes (*Tokas and Kadyan, 2016*).

METHODOLOGY

The study was conducted on forty five (N=45) inter collegiate football players who have participated in the Calicut university , Kerala football tournaments during the year 2016-2017 were selected randomly as subjects. Their age ranged from 18 to 25 years. The subjects were assigned at random into three groups of fifteen each (n=15). Group-I underwent Yogasana Practice (n=15), Group-II underwent Meditation Practice (n=15) and Group-III acted as Control. The experimental groups underwent the respective training for a period of 12 weeks (3

days/week), whereas the control remain as normal with the sedentary life. The dependent variable selected for this study was Vital Capacity and it was assessed by Spirometre. All the three groups were tested on selected Vital Capacity was analyzed before and after the training period.

ANALYSIS OF THE DATA

The data collected from the experimental groups and control group on prior and after experimentation on selected variables were statistically examined by analysis of covariance (ANCOVA) was used to determine differences, if any among the adjusted post test means on selected criterion variables separately. Whenever they obtained f-ratio value was significant the Scheffe's test was applied as post hoc test to determine the paired mean differences, if any. In all the cases 0.05 level of significance was fixed.

The Analysis of covariance (ANCOVA) on Vital Capacity of Experimental Groups and Control group have been analyzed and presented in Table -1.

The analysis of covariance on Vital Capacity of the pre, post, and adjusted test scores of Yogasana Practices group, Meditation Practices group and Control group have been analyzed and presented in Table – 1.

TABLE – 1

COMPUTATION OF ANALYSIS OF COVARIANCE OF PRE TEST, POST TEST AND ADJUSTED POST TEST ON VITAL CAPACITY OF EXPERIMENTAL GROUPS AND CONTROL GROUP

| Test | Yogasana Practices Group-I | Meditation Practices Group-II | Control Group-III | Source of Variance | Sum of Squares | df | Mean Squares | F ratio |
|-------------------------|----------------------------|-------------------------------|-------------------|--------------------|----------------|----|--------------|---------|
| Pre-Test Mean | 3119.17 | 3098.73 | 3060.73 | Between groups | 21211.21 | 2 | 10605.61 | 0.23 |
| | | | | Within groups | 1926611.19 | 42 | 45871.70 | |
| Post-Test Mean | 3371.02 | 3261.33 | 3071.55 | Between groups | 756591.77 | 2 | 378295.89 | 10.20* |
| | | | | Within groups | 1557871.12 | 42 | 37092.17 | |
| Adjusted Post-Test Mean | 3397.35 | 3267.07 | 3088.11 | Between sets | 570611.19 | 2 | 285305.60 | 25.93* |
| | | | | Within Sets | 451111.47 | 41 | 11002.72 | |

* Significant at 0.05 level of confidence

Table value for df (2, 42) at 0.05 level = 3.22 Table value for df (2, 41) at 0.05 level = 3.23 (Vital Capacity scores are in ml/kg/min)

Table-1 shows that the obtained F-ratio value 0.23 for pre test mean of Yogasana Practices group, Meditation Practices group and Control group on Vital Capacity is less than the required table value of 3.22 for significance with df 2 and 42 at 0.05 level of confidence.

The obtained F-ratio value of 10.20 for post test mean of Yogasana Practices group, Meditation Practices group and Control group on Vital Capacity is more than the required table value of 3.22 for significance with df 2 and 42 at 0.05 level of confidence.

The obtained F-ratio value of 25.93 for adjusted post test mean of Yogasana Practices group, Meditation Practices group and Control group on Vital Capacity is higher than the required table value of 3.23 for significance with df 2 and 41 at 0.05 level of confidence.

The results of the study indicated that there is a significant difference between the adjusted post-test means of Yogasana Practices group, Meditation Practices group and Control group on Vital Capacity. Since, three groups are compared and whenever the obtained 'F' ratio for adjusted post test is found to be significant, Scheffe's test is used to find out the paired mean difference and it is presented in Table-2.

TABLE -2

SCHEFFE'S TEST FOR THE DIFFERENCE BETWEEN PAIRED MEANS ON VITAL CAPACITY

| Yogasana Practices Group-I | Meditation Practices Group-II | Control Group | Mean Difference | Confident Interval Value |
|----------------------------|-------------------------------|---------------|-----------------|--------------------------|
| 3397.35 | 3267.07 | --- | 130.28 | 101.27 |
| 3397.35 | --- | 3088.11 | 309.54 | |
| --- | 3267.07 | 3088.11 | 178.96 | |

**Significant at 0.05 level of confidence.*

Table-2 shows that the mean difference values of Yogasana Practices group and Meditation Practices group, yogasana practices group and Control group and Meditation practices group and control group are 130.28, 309.54 and 178.96 respectively, which are greater than the confidence interval value of 101.27 on Vital Capacity at 0.05 level of confidence.

The results of the study showed that there was a significant difference between Yogasana Practices group and Meditation Practices group, yogasana practices group and Control group and Meditation practices group and control group.

The above data also reveal that Yogasana Practices group had shown better performance than Meditation Practices group and Control in Vital Capacity.

The adjusted post mean values of Yogasana Practices group, Meditation Practices group and Control group on Vital Capacity are graphically represented in the Figure -1.

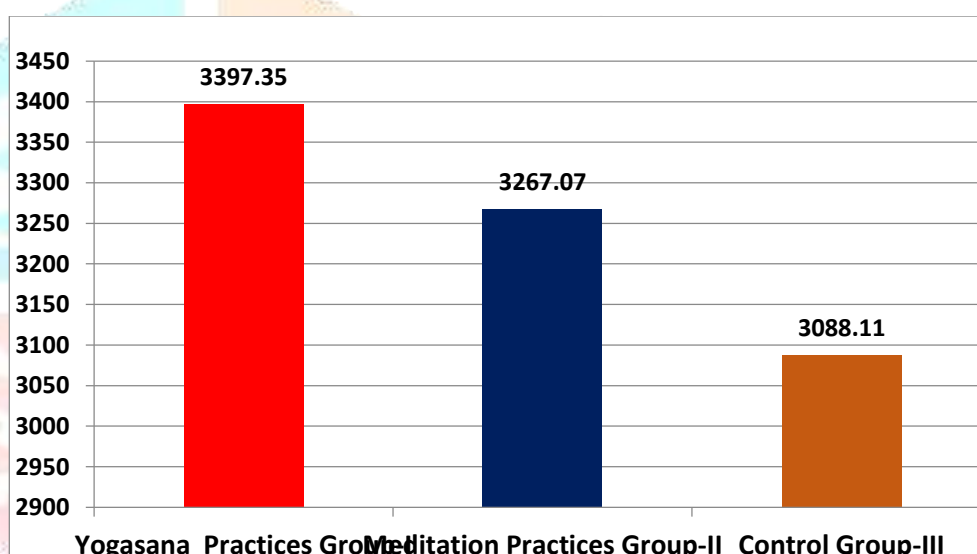


Figure: 1 The Adjusted Post Test Mean Values of Iron yoga Practices group, Meditation Practices group and Control group on Vital Capacity

CONCLUSION

From the analysis of the data, the following conclusions were drawn.

1. Significant differences in achievement were found between Yogasana Practices group, Meditation Practices group, and Control group in the selected criterion variable on Vital Capacity.
2. The Experimental groups namely, Yogasana Practices group, Meditation Practices group, had significantly increased in Vital Capacity.
3. The Yogasana Practices group was found to be better than the Meditation Practices group and Control group in increasing Vital Capacity among the football Players.

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