



IMPACT OF YOGIC AND MALLAKHAMB PRACTICES ON SELECTED PHYSIOLOGICAL AND PERFORMANCE VARIABLES AMONG KABADDI PLAYERS

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ABSTRACT

The purpose of the study was to find out the impact of yogic and mallakhamb practices on selected physiological variables namely Breath holding time, Vital capacity and performance among male kabaddi players. To achieve the purpose of the study thirty six male kabaddi players were randomly selected from in and around Salem district in the state of Tamil Nadu, India. The age of subjects were ranged from 18 to 25 years. The subjects had past experience of at least three years in kabaddi and only who those represented their respective college teams were taken as subjects. The subjects were randomly assigned into three groups of 12 each, such as experimental and control groups. Group-I underwent yoga practice, Group-II underwent mallakhamb practice for 5 days a week, one session (morning) per day and for 8 weeks, each session lasted 90 minutes. The control group maintained their daily routine activities and no special training was given. The subjects of the three groups were tested on selected variables prior and immediately after the training period. The collected data were analyzed statistically through analysis of covariance (ANCOVA) to find out the significance difference, if any between the groups. In case 'F' values found to be the significant the Scheffe's test was used as post hoc test. The 0.05 level of confidence was fixed to test the level of significance difference, if any between groups. The results of the study showed that there was significant level differences exist among yoga practice group, mallakhamb practice group and control group. And also yoga practice group, mallakhamb practice group showed significant difference on Breath holding time, Vital capacity and kabaddi playing ability to control group. When experimental groups were compared mallakhamb practice group showed significant improvement on Breath holding time, Vital capacity and kabaddi playing ability.

KEYWORDS

Yoga, Mallakhamb, Breath Holding Time, Kabaddi Playing Ability.

Introduction

The world health organization defined health as a state of complete physical, mental and social well- being and not merely the absences of disease and infirmity and fitness as the ability to perform muscular won satisfactorily and the centers for disease control defines it as a set of attributes that people have or achieve that relates to the ability to perform physical activity.

Yoga

The great sage Patanjali who was born in 200 BC systematized the science of yoga which till then was being handed down by word of mouth from one generation to another. Traditionally it said that Lord Siva was the innovator of yoga. Yoga means the experience of oneness or unity with inner being. This unity comes after dissolving the duality of mind and matter into supreme reality. It is a science by which the individual approaches truth. The aim of all yoga practice is to achieve truth where the individual soul identifies itself with the supreme soul or God. Yoga has the surest remedies for man's physical as well as psychological ailments. It makes the organs of the body active in their functioning and has good effect on internal functioning of the human body. Yoga is a re education of one's mental process, along with the physical. Yoga has been practiced in India for over two millennia. Stories and legends from ancient times testify to the existence of yoga, and to the practitioners and divinities associated with it. India literature is a storehouse of knowledge about yoga covering every covering conceivable level. Roughly in chronological order are the vocals (books of scriptural knowledge), the Upanishada (Philosophical cosmologies), and their commentaries; then the Puranas (ancient cosmologies), and the two epics, the Ramayana and the Mahabharata (Chandrasekar, 2003).

Mallakhamb

This contention is further strengthened by a historical event of the 19th century. Besides the ancient depicts of the archaeological and surveys old paintings similar to mallakhamb and also be traced in the 12th century classic "Mallakhamb" written by chalukya (1135 AD). The historical event of the 19th century during the peshwa

regime does support the BalbhimHanuman,s originality in this unite arts initially it is important and to know the significance of the world "mallakhamb" 'malla' denotes a man power or strength an "khamb" signifies of a pole. This mallakhamb is on apparatus by means of which a gymnast builds his physical culture (Deshpande, 1986).

Thus, aim of the impact of yogic and mallakhamb practices on selected physiological and performance variables among kabaddi players.

Methodology

To achieve the purpose of the study thirty six male kabaddi players were randomly selected from in and around salem district in the state of Tamil Nadu, India. The age of subjects were ranged from 18 to 25 years. The subjects had past experience of at least three years in kabaddi and only who those represented their respective college teams taken as subjects were randomly assigned into three groups of 12 each, such as experimental and control groups. Group-I underwent yoga practice, Group-II underwent mallakhamb practice for 5 days a week, one session (morning) per day and for 8 weeks, each session lasted 90 minutes. The control group maintained their daily routine activities and no special training was given. The subjects of the three groups were tested on selected variables prior and immediately after the training period. The collected data were analyzed statistically through analysis of covariance (ANCOVA) to find out the significance difference, if any between the groups. In case 'F' values found to be the significant the Scheffe's test was used as post hoc test. The 0.05 level of confidence was fixed to test the level of significance difference, if any between

TABLE - I

Criterion Measure

| S.No | Physical Variables | Test/Equipment used | Measuring unit |
|------|---------------------|---------------------|-------------------|
| 1 | Breath holding time | Digital stop watch | In seconds |
| 2 | Vital capacity | Spiro meter | In Liter/ seconds |

| | | | |
|---|-------------|-------------------|-----------|
| 3 | Performance | Subjective rating | In points |
|---|-------------|-------------------|-----------|

TABLE –II
Descriptive Analysis of Selected Physiological and Performance Variables among Experimental and Control Groups

| S.No | Variables | Group | Pre-Test Mean | SD (±) | Post-Test Mean | SD (±) | Adjusted Mean |
|------|---------------------|-------|---------------|--------|----------------|--------|---------------|
| 1 | Breath Holding Time | YG | 33.28 | 0.22 | 36.53 | 1.19 | 36.47 |
| | | MG | 33.44 | 0.30 | 38.48 | 0.28 | 38.52 |
| | | CG | 33.39 | 0.31 | 34.63 | 1.82 | 34.64 |
| 2 | Vital Capacity | YG | 2.69 | 0.05 | 2.81 | 0.18 | 2.80 |
| | | MG | 2.66 | 0.04 | 2.97 | 0.16 | 2.97 |
| | | CG | 2.65 | 0.05 | 2.63 | 0.06 | 2.63 |
| 3 | Performance | YG | 5.81 | 0.05 | 5.99 | 0.11 | 5.99 |
| | | MG | 5.80 | 0.05 | 6.13 | 0.06 | 6.13 |
| | | CG | 5.79 | 0.06 | 5.84 | 0.15 | 5.86 |

YG=yogic practice group MG= Mallakhamb practice group CG=Control group

The tables-II the pre-test, post-test, adjusted means and standard deviations on selected physiological and performance variables of male kabaddi players were numerical presented. The analysis of covariance on selected variables of experimental groups and control group is presented in table –III.

Table –III
Computation of Analysis of Covariance on Selected Physiological and Performance Variables Among Kabaddi Players

| S. No | Variables | Test | Sum of variance | Sum of squares | df | Mean square | F ratio | |
|-------|---------------------|----------------|-------------------|----------------|----|-------------|---------|------|
| 1 | Breath Holding Time | Pre-test | Between the group | 0.14 | 2 | 0.07 | 0.92 | |
| | | | Within the group | 2.66 | 33 | 0.08 | | |
| | | Post-test | Between the group | 89.04 | 2 | 44.52 | | 27.5 |
| | | | Within the group | 53.29 | 33 | 1.61 | | 6* |
| | | Adjusted means | Between the sets | 89.95 | 2 | 44.97 | | 27.5 |
| | | | Within the sets | 52.26 | 32 | 1.63 | | 4* |
| 2 | Vital Capacity | Pre-test | Between the group | 0.01 | 2 | 0.006 | 2.13 | |
| | | | Within the group | 0.09 | 33 | 0.003 | | |
| | | Post-test | Between the group | 0.68 | 2 | 0.34 | | 15.8 |
| | | | Within the group | 0.72 | 33 | 0.02 | | 0* |
| | | Adjusted means | Between the sets | 0.67 | 2 | 0.33 | | 15.1 |
| | | | Within the sets | 0.71 | 32 | 0.02 | | 4* |
| 3 | Performance | Pre-test | Between the group | 0.002 | 2 | 0.001 | 0.34 | |
| | | | Within the group | 0.11 | 33 | 0.003 | | |
| | | Post-test | Between the group | 0.52 | 2 | 0.26 | | 18.3 |
| | | | Within the group | 0.41 | 33 | 0.01 | | 2* |
| | | Adjusted means | Between the sets | 0.48 | 2 | 0.24 | | 17.7 |
| | | | Within the sets | 0.43 | 32 | 0.01 | | 9* |

*Significant at 0.05level of confidences

(The table values required for significance at 0.05 level of confidence for 2 & 33 and 2 & 32 are 3.29 and 3.30 respectively).

In the table the results of analysis of covariance on Breath holding time, Vital capacity and Kabaddi playing ability. The obtained 'F' ratio of 0.92, 2.13 and 0.34 for Pre-test means was less than the table value of 3.29 for df 2 and 33 required for significance at 0.05 level of confidence on Breath holding time, Vital capacity and Kabaddi playing ability. The obtained 'F' ratio of 27.56, 15.80 and 18.32 for post-test means was greater than the table value of 3.29 for df 2 and 33 required for significance at 0.05 level of confidence on Breath holding time, Vital capacity, and Kabaddi playing ability. The obtained 'F' ratio of 27.54, 15.14 and 17.79 for adjusted post-test means was greater than the table value of 3.30 for df 2 and 32

required for significance at 0.05 level of confidence on Breath holding time, Vital capacity and Kabaddi playing ability. The result of the study indicated that there was a significant difference among the adjusted post test means of yogic practice group, mallakhamb group and control group on Breath holding time, Vital capacity and Kabaddi playing ability.

Since the obtained 'F' ratio value was significant further to find out the pair mean difference, the scheffe's test was employed and presented in table –IV

TABLE –IV
The Scheffe's Test for the Differences Between the Adjusted Post Tests Paired Means on Breath Holding Time, Vital Capacity and Performance Variables

| Yogic Practice Group | Mallakha mb Group | Control Group | Mean Difference | Confidence Interval |
|----------------------------|-------------------|---------------|-----------------|---------------------|
| Breath Holding Time | | | | |
| 36.47 | 38.52 | | 2.05* | 1.65 |
| 36.47 | | 34.64 | 1.83* | |
| | 38.52 | 34.64 | 3.88* | |
| Vital Capacity | | | | |
| 2.81 | 2.98 | | 0.17* | 0.16 |
| 2.81 | | 2.64 | 0.17* | |
| | 2.98 | 2.64 | 0.34* | |
| Performance | | | | |
| 5.99 | 6.13 | | 0.14* | 0.13 |
| 5.99 | | 5.84 | 0.13* | |
| | 6.13 | 5.84 | 0.27* | |

*Significant at 0.05level of confidences

From the table-IV, clear that the adjusted post test means are 36.47, 38.52 and 34.64; 2.81, 2.98, and 2.64; 5.99, 6.13 and 5.84 respectively. The mean differences values are between yogic group and Mallakhamb group; yogic group and control group & Mallakhamb group and control group are 2.05, 1.83 and 3.88; 0.17, 0.17 and 0.34; 0.14, 0.13 and 0.27 respectively Breath holding time, Vital capacity and performance on are greater than the confidence interval value 1.65; 0.16 and 0.13 at 0.05 level of confidence. The results of the study showed that there were a significant difference between yogic group and Mallakhamb group; yogic group and control group & Mallakhamb group and control group on Breath holding time, Vital capacity and performance When yogic groups were compared Mallakhamb group showed significantly improvement.

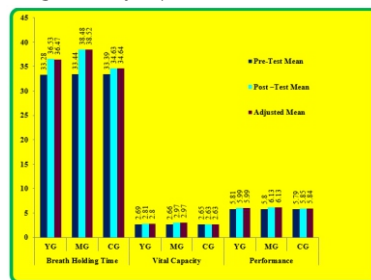


Figure-I The Pre, Post and Adjusted Mean values of Breath Holding Time, Vital Capacity and Performance Variables of Experimental Groups and Control Group are graphically represented.

Result and Discussions

The results of the study indicate that the experimental groups which underwent yogic group and Mallakhamb group had showed significant improved in the selected variables namely such as Breath Holding Time, Vital Capacity and Performance when compared to the Control Group. The mallakhamb groups showed significant difference in as Breath Holding Time, Vital Capacity and Performance Variables improvement which due to 8 weeks of mallakhamb training, when compare with yogic group. The control group did not show significant improvement in any of the

selected variables. The past studies on selected Physiology components also Seshagiri Rao and Kishore (2014) found that 6 week of yogic practices was found effective in improve Breath Holding capacity of kabaddi players. Baljinder Singh Bal et al, (2012) study was to determine the effects of 6-week rope mallakhamb training on speed of movement, vital capacity and peak expiratory flow rate. Suresh and madanmohan (2015) found that asana & meditation group had positive impact on performance factor among college kabaddi players.

Conclusions

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

1. The result reveals that the yogic and mallakhamb groups showed significant difference in all the selected variables such as Breath Holding Time, Vital Capacity and performance Variables due to 8 weeks of mallakhamb training, when compare with control group.
2. The mallakhamb groups showed significant difference in Breath Holding Time, Vital Capacity and performance Variables improvement which due to 8 weeks of mallakhamb training, when compare with yogic group.

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