INFLUENCE OF PRANAYAMA PRACTICES ON RESTING PULSE RATE AMONG KABADDI PLAYERS

Dr.R.Selvakumar* & Dr.G.Vigneshwaran**

*Guest Lecturer, Department of Physical Education, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India – 620 024.
**Teaching Assistant (Physical Education), Tamil Nadu Agricultural University, Agriculture College and Research Institute, Kudumiyanmalai, Pudukkottai, Tamil Nadu, India -622104.

Abstract

The main purpose of the present study was to find out the influence of pranayama practices on resting pulse rate among kabaddi players. To achieve the purpose of the study, 20 male intercollegiate kabaddi players were selected at random from Department of Physical Education, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India. The age of the participants was 20 to 23 years old only. The selected participants were divided into two equal groups as follows experimental and control groups. Group ‘I’ underwent pranayama practices and Group ‘II’ act as control group they did not participated any specific training except their own regular activities. All the subjects in the experimental group were given their respective training programme was performed three days/wk training for eight weeks duration. The selected dependent variables namely resting pulse rate; it was measured by radial pulse method. The post-tests were conducted on the above said dependent variables after the period of eight weeks. The difference between the pre-test and post test was considered the effect of respective experimental practices. The collected data were statistically analyzed by using dependent-’t’ test and ANCOVA. All the above statistical analysis tests were computed at 0.05 level of significance (P<0.05). It was concluded that the results of the study that the experimental group showed significant improvement on resting pulse rate when compared to the control group. It also found that the experimental group showed significant difference on resting pulse rate when compared to the control group.

Keywords: Pranayama Practices, Resting Pulse Rate

Introduction

Yoga is a very ancient discipline. It is recognized as one of the most important and valuable gifts of the Indian heritage. Today the world is looking to Introduction 25 yoga for solving the various problems men are facing (Vigneshwaran, 2016). Yoga practice is beneficial - whether physically, mentally, or emotionally. Just keep in mind that there are guidelines in doing Yoga Exercises (Vigneshwaran, 2015). Develop proper breathing techniques. Enhance your functional strength and muscular endurance in your legs and core areas (Selvaraja & Arumugam, 2018).

Pranayama is an exact science. It is the regulation of breath or control of prana which is the stoppage of inhalation and exhalation that follows after securing that steadiness of posture or seat, Asana. In pranayama, the mind is kept attentive so that the rhythm of breathing is regulated. The frontal brain, which is the seat of intellectual activity, is made quiet. Complete neuro – physiological relaxation occurs (James, 2009). Physiological systems of the body to be fit, they
must function well enough to support the scientific activity that the individual is performing. Moreover, different activity makes different demands upon the organism with respect to the circulatory, respiratory, metabolic, and neurologic processes which are specific to the activity (Chandler, 1994). Breath-holding time has been defined as the duration of time through which one can hold his or her breath without inhaling or exhaling (Suriya & Arumugam, 2018). The rate of the arterial pulse usually observed at the wrist and stated in beats per minute (Bhatt, 2018).

**Purpose of the Study**

The purpose of the study was to find the influence of pranayama practices on resting pulse rate among kabaddi players.

**Methodology**

To achieve the purpose of the study, 20 male intercollegiate kabaddi players were selected at random from the Department of Physical Education, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India. The age of the participants was 20 to 23 years old only. The selected participants were divided into two equal groups as follows: experimental and control groups. Group ‘I’ underwent pranayama practices and Group ‘II’ act as control group, they did not participate in any specific training except their own regular activities. All the subjects in the experimental group were given their respective training programme, which was performed three days/wk training for eight weeks duration. The selected dependent variables namely resting pulse rate; it was measured by radial pulse method. The post-tests were conducted on the above said dependent variables after the period of eight weeks. The difference between the pre-test and post test was considered the effect of respective experimental practices. The collected data were statistically analyzed by using dependent-‘t’ test and ANCOVA. All the above statistical analysis tests were computed at 0.05 level of significance (P<0.05).

**Table I**

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Test</th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resting Pulse Rate</td>
<td>Pre Test</td>
<td>73.25</td>
<td>73.11</td>
</tr>
<tr>
<td></td>
<td>Post Test</td>
<td>68.47</td>
<td>72.91</td>
</tr>
<tr>
<td></td>
<td>t- test</td>
<td><strong>9.88</strong>*</td>
<td>1.46</td>
</tr>
</tbody>
</table>

*Significant at 0.05 level. The Table Value required at 0.05 levels with df 11 is 2.20.

From the table-I, the experimental group had significantly improved on resting pulse rate while compared than the control group.
Table II

Analysis of covariance on selected resting pulse rate of experimental & control groups

<table>
<thead>
<tr>
<th>Test</th>
<th>Continuous Training Group</th>
<th>Control Group</th>
<th>SOV</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resting Pulse Rate</td>
<td>68.31</td>
<td>72.86</td>
<td>B.M</td>
<td>422.18</td>
<td>1</td>
<td>422.18</td>
<td>50.14*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>W.G</td>
<td>176.82</td>
<td>21</td>
<td>8.42</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.05 level. Table value for df 1, 21 was 4.32.

From the table-II shows that the adjusted post-test means values on resting pulse rate. The obtained f-ratio for variables was 50.14 but the required table value of df 1 and 21 was 4.32. It shows that experimental groups of obtained value were greater than the required table value at 0.05 level of confidence. This results of the study indicated that there was a significant mean difference exist between the experimental and control groups on resting pulse rate.

Figure 1: Mean value of experimental and control groups on resting pulse rate among kabaddi players.

Discussion on Findings

The result of study indicates that there were significant differences exist between experimental and control groups on resting pulse rate among kabaddi players. The following studies are supported to the result of this investigation from Arumugam, S., & Vimal Kumar, V. (2019); Vigneshwaran, G. (2015) & Bhatt, K. S. (2018).

Conclusions

On the basis of findings of the study, the following conclusions may be drawn:

1. There was significant improvement on resting pulse rate due to the influence of pranayama practices among kabaddi players.
2. There was significance difference exists between experimental and control groups on resting pulse rate among kabaddi players.
3. However the control group had not shown any significant improvement on any of the selected variables.
Reference: