A study on cardiovascular efficiency between Kabaddi and Kho-Kho players

M Umesh and Suraram Suresh Kumar

Abstract
Cardio respiratory endurance is a basic component of physical fitness. Physical fitness is the capacity of an individual to carry out daily tasks with vigour and alertness without under fatigue. Cardiovascular efficiency is an achievement through different physical activities, these efficiency might play a vital complex phenomenon in all substances hence acquiring cardiovascular efficiency is turned into great do to the players, efficiency players role in ringing small muscles to big muscles cardio vascularly bring about a healthy live and improvement of various internal organs functions without presence of these efficiency a player may not functions in all aspects. Thus assuming efficiency is a key factor to the player and as well as job of the physical trainer or coach.

Keywords: Physical efficiency, physical fitness, cardiac exercises, blood circulation, pulse rate

Introduction
The study shows the purpose of how and efficiency of cardiovascular respiration plays an innumerable activities regarding physical fitness, capacitating of internal organs turns to big muscularity, a healthy function of blood, important of pulse rate, the effective function of cardiac output will supplies will nutrients to the organs of the body. An efficient cardiorespiration system to the muscles and quick recovery after exercise. Cardio respiratory endurance is dependent on combined efficiency of blood vessels, heart and lungs; the cardiac cycle includes systole and diastolic phases. Pertaining efficiency endurance is a best exercise poor muscular contraction may leads into numeric heart diseases, having high cholesterol in ventricular walls decreases healthy function of heart. A player should have healthy cardiorespiratory efficiency towards assuming physical fitness otherwise he may not present well in sport activities.

Subject selection
To achieve this purpose we have elected 30 players from each stream kho - kho and kabaddi, and also the motor qualities of the player’s alike strength, endurance, speed, agility, pulse rate, physical fitness and efficiency.

Materials and method
The purpose of the study was to find out whether there was and significant difference in the cardiovascular efficiency of kabaddi and Kho-Kho players. To achieve this purpose 30 players from each stream selected. For administering the test on these subjects to measure the cardiovascular efficiency the test was conducted only explanation the test scores were recorded accordingly to the institutions given the date thus collected was analyzed statically to find out the results.

Administration of the test
1) Cardiovascular test
The collection of date on problems on exercise physiology must take place away from the biochemical laboratory although in planning the two may be absent. Depending upon whether not chemical work is to be done, the collection of gas for analysis will require certain techniques and analysis, so the cardiovascular laboratory should require such things as
environmental chambers, treadmill, recorders, and sufficient electrical outlets. General physical condition and base 1 metabolic rate and measurement. In general the first two purposes achievement not been proposed, rather the results have been shotgun cardiovascular prescription. First many cardiovascular not thoroughly understood. Second, such significant cardiovascular variables as diastolic pressure and venous pressure have not been generally utilized in the test that never been proposed. Effective movement depends on a harmonious working together of the muscular and nerves of results in great distance between peak performance and fatigue, it found in activities such as running, jumping. The inter correction between factors were low and mostly insignificant. A review of factor and analysis studies was recently presented by one of the writer as cardiovascular responses in order to determine the present status of health and the condition of the heart.

2) Harward Step Test
In the laboratory on the field the fitness can be measured by this simplest test it known as Hardward Step Test. The harward step test was developed by barouche for the purpose of measuring physical fitness for muscular and the ability to recover come work.

Equipment and material used 16 height stool platform and watch with second had are the on equipment needed. A metro name with sound may be used effectively for group testing.

Direction
The subject has to step up and down on the stoop a cadens of 30 step per minute on a stool for a fixed time of 5 minutes after5 minutes exercise the subject was allowed to take rest after one minute recover the pulse rate was counted from 1 to ½, min. 2 to 2 ½ 3 to 3 ½ min. The following equation was used to calculate the physical efficiency index (p.e.)

\[ \text{p.e.i} = \frac{\text{duration of exercise in} \times \text{to seconds/} 100 (2/\text{sim of 3 pulse rate})} \]

Statistical techniques used
The following statistatical procedures were and adopted to estimate the comparison between the cardiovascular efficiency of kabaddi adn kho-kho players since the total no of subjective were 30 in each group the calculation were done by the method of grouped data. For the purpose of test on go the significance of the difference between the means of the two groups. To find out the mean from the grouped data clarks mean formula used. To find the standard divination clark and clark formula used for t- ration and the degrees of freedom clark and clark formulas used.

Data analysis and interpretation
After collecting the data selected for stratal analysis in order to know whether there is any difference between kabaddi and kho-kho players in respect of cardiovascular efficiency. To compare the cardiovascular efficiency of the kabaddi players and kho-kho players men, standard deviation, difference s between means standarderror of the mean and t-ratio was computed. The requires t-ratio is compared from the table given by clerk and Clarke. The computation of mean, standard deviation, T – ratio of cardiovascular efficiency of the kabaddi and kho-kho players are presented in table -1.

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Difference between mean</th>
<th>Standard deviation</th>
<th>Standard error of the mean</th>
<th>Standard error of difference between mean</th>
<th>t-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kabaddi</td>
<td>96.9</td>
<td>1.6</td>
<td>12.23</td>
<td>2.45</td>
<td>3.13</td>
<td>0.51</td>
</tr>
<tr>
<td>Kho-kho</td>
<td>95.3</td>
<td>98.69</td>
<td>12.23</td>
<td>2.45</td>
<td>3.13</td>
<td>0.51</td>
</tr>
</tbody>
</table>

The above table shows that in significant difference exist between kabaddi and kho-kho players in respect of cardiovascular efficiency as the tabulated values of t-ratio is 0.51 level of confidence further it can be said that the selected that were is no significant difference seen as the tabulation value of t-ratio was 0.5 here resulting the hypothesis as kabaddi The bove table shows that in significant difference exist between kabaddi and kho-kho players. In respect of cardiovascular efficiency as the tabulated values of t-ratio is 0.51 level of confidence further it can be said that the selected that were is no significant difference seen as the tabulation value of t-ratio was 0.5 here resulting the hypothesis as kabaddi players might have better cardiovascular to the kho-efficiency where compared kho and kabaddi.

Conclusion
The following conclusions were drawn from the study. The calculated t-ratio is much higher that on the table value of 1.96 at 0.05 level of confidence. The hypothesis was resulted that kabaddi and kho-kho players have significant difference in result of cardiovascular efficiency.

References
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