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

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### 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. cardio vascular efficiency is an vigour's achievement through the different physical activities, these efficiency might play a vital complex phenomenon in all substances hence acquiring cardio vascular efficiency is turned al great dob to the players, efficiency players role in ringing small muscles to big muscles cardio vascularity 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 cardio respiration 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 cardio respiratory 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 achive 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

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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 Harward 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 after 5 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 indes (p.e.)

**Scoring**

p.e.i = duration of exercise in to seconds/ 100 (2/sim of 3 pulse rate)

**Statical techniques used**

The following statistical 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 statical 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 1:** Tabulation of mean, standard deviation and t- ratio of cardiovascular efficiency of kabaddi and kho- kho players.

Group	Mean	Difference between mean	Standard deviation	Standard error of the the mean	Standard error of difference between mean	t- ratio
Kabaddi	96.9	1.6	12.23	2.45	3.13	0.51
Kho-kho	95.3		98.69	1.95		

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**

1. Laboratory and experimental research Harison clark.

Research proresses in physical education.  
 2. Gurbaksh sand really ball the sprots people Nov. 1382.  
 3. Johand. Lawthan scientific principles of strength coaching.  
 4. Jack Willmore H. traning for sports and activities U.S.A. 1938.  
 5. Farnks. Bentsh a factor analysis some cardiovascular respiratory variables and test research quarterly.  
 6. Introduction to measurement foundations of measurement darold barrow 4<sup>th</sup> edition.