

ORIGINAL ARTICLE



A COMPARATIVE STUDY OF PHYSICAL FITNESS BETWEEN KABADDI AND KHO-KHO PLAYERS

Naseer Ud Din Waza¹, Ovais Ahmad Rather² and Naseer Mushtaq Rather³

^{1,2} M.PED Student at Government College of Physical Education Ganderbal.

³ M.PED Student at University of Kashmir Hazratbal Srinagar.

ABSTRACT

The purpose of the study was to compare the physical fitness between Kabaddi and Kho-Kho players of district Ganderbal. The data was collected through administration a standard AAPHER youth fitness test on selected variables. There were 50 subjects selected randomly out of which 25 were Kabaddi players and remaining 25 were Kho-Kho players chosen from the different colleges of district Ganderbal. The data was collected from these subjects by conducting a standard AAPHER youth fitness test and later on the data was analyzed statically by using t test for comparison and its exact analysis. The variables used for this study for both the groups of players were cardiovascular endurance, speed, Strength, coordination ability, muscular strength and power. All the six variables were included in the AAPHER youth fitness test and all were measured by conducting the test to both the groups. The level of significance was kept at 0.05 level the result of this study indicated that there is not any significant variables of cardiovascular Endurance, Speed, Strength, Muscular Strength, Coordination ability and Power.

KEY WORDS: *Fitness, Strength, Power, Cardiovascular Endurance.*

INTRODUCTION

The popular saying “health is wealth” gives a large meaning to our life as health is considered the most valuable and precious for every individual. Good health means not only a state of absence of disease in the body but a complete physical, mental, social as well as spiritual well-being of an individual. A healthy environment facilitates good health but it is the unhealthy environment due to over population, excessive industrialization, air and water pollution etc. That is threatening the life with many dreadful diseases. In the contemporary India many people have been gripped by the clutch of disease like cancer, diabetes, hypertension, AIDS etc. Although

people of ancient India were said to be relatively healthy. At present people are suffering from various mental disorders also because they are racing blindly towards fame and having only one aim in life that is to achieve the big status in society. Today competition in each field is so intense that nobody can escape from the hectic schedule of life. Earlier, a few decades ago, people used to work differently, enjoying the different color of life. But it is noticed now that people are working under stressful condition and without satisfaction, which is detrimental to their physical fitness. As a result they are suffering from many diseases.

WHAT DOES IT MEAN TO BE PHYSICALLY "FIT?"

Physical fitness is defined as "a set of attributes that people have or achieve that relates to the ability to perform physical activity". In other words, it is more than being able to run a long distance or lift a lot of weight at the gym. Being fit is not defined only by what kind of activity you do, how long you do it, or at what level of intensity. While these are important measures of fitness, they only address single areas. Overall fitness is made up of five main components:

1. Cardiorespiratory endurance
2. Muscular strength
3. Muscular endurance
4. Body composition
5. Flexibility.

1. What is "cardio-respiratory endurance (cardio-respiratory fitness)?"

Cardio-respiratory endurance is the ability of the body's circulatory and respiratory systems to supply fuel during sustained physical activity. To improve your cardio-respiratory endurance, try activities that keep your heart rate elevated at a safe level for a sustained length of time such as walking, swimming, or bicycling. The activity you choose does not have to be strenuous to improve your cardio-respiratory endurance. Start slowly with an activity you enjoy, and gradually work up to a more intense pace.

2. What is "muscular strength?"

Muscular strength is the ability of the muscle to exert force during an activity. The key to making your muscles stronger is working them against resistance, whether that be from weights or gravity. If you want to gain muscle strength, try exercises such as lifting weights or rapidly taking the stairs.

3. What is "muscular endurance?"

Muscular endurance is the ability of the muscle to continue to perform without fatigue. To improve your muscle endurance, try cardio-respiratory activities such as walking, jogging, bicycling, or dancing.

4. What is "body composition?"

Body composition refers to the relative amount of muscle, fat, bone, and other vital parts of the body. A person's total body weight (what you see on the bathroom scale) may not change over time. But the bathroom scale does not assess how much of that body weight is fat and how much is lean mass (muscle, bone, tendons, and ligaments). Body composition is important to consider for health and managing your weight!

5. What is "flexibility?"

Flexibility is the range of motion around a joint. Good flexibility in the joints can help prevent injuries through all stages of life. If you want to improve your flexibility, try activities that lengthen the muscles such as swimming or a basic stretching program.

Skill Related Components of Fitness

Agility

Is the ability to change the position of your body and to control the movement of your whole body? Agility is an important quality in many sports, because you must change direction rapidly and always have your body under control.

Balance

Is the ability to keep an upright posture while either standing still or moving. Good balance is essential in many activities like skating, surfing, skiing, and gymnastics.

Power

Is the ability to perform with strength at a rapid pace. Strength and speed are both involved in power. Football players, swimmers, shot-putters, discus throwers, and high jumpers are examples of athletes who typically have a high degree of power.

Reaction Time

Is the amount of time it takes to start a movement once your senses signal the need to move. People with good reaction time can usually start quickly in track and swimming or react quickly in ping pong or karate.

Coordination

Is the integration of eye, hand, and foot movements? This component is necessary for success in such sports as baseball, softball, tennis, golf, and basketball.

Speed

Is the ability to cover a distance in a short amount of time. Speed is a very important factor in many sports and activities. Short runs are used to evaluate speed.

STATEMENT OF PROBLEM

- To compare the physical fitness between Kabaddi and Kho-Kho players of district Ganderbal.

OBJECTIVES OF THE STUDY

The proposed objectives of the present research were follows:

- To find out the physical fitness of Kabaddi players of District Ganderbal
- To find out the physical fitness of Kho-Kho players of District Ganderbal
- To compare the physical fitness of Kabaddi and Kho-Kho players of District Ganderbal

LIMITATIONS OF STUDY

- The hereditary and potential of students was not under the control of researcher.

- The Socio-economic status and political situations was not taken into consideration.
- Interest of subjects towards assessment was not known.
- Climatic condition was not under the control of researcher.

DELIMITATIONS:

The study was delimited to the following aspects:

- The study was delimited to players of district Ganderbal.
- The study was delimited to 50 players.
- The study was delimited to Government Degree College Ganderbal and Physical college Ganderbal.

HYPOTHESIS

According to available literature in the field the following hypothesis was formulated:

- It was hypothesised that, “there would be no significant difference between the components of physical fitness between Kabaddi and Kho-Kho players of district Ganderbal”

SIGNIFICANCE OF THE STUDY

The significance of the problem is justified in the following points:

- The findings of present study will help the players to check the level of their physical fitness components.
- The study gives us concept and clear picture about the importance of physical fitness training programmes.
- The study helps the players to prove themselves best in the field of games and sports.
- The study provides information about the physical fitness components of Kabaddi and Kho-Kho players

Methodology

SOURCE OF DATA

- The data pertaining to the study was collected from the Kabaddi and Kho-Kho players of district Ganderbal.

SELECTION OF SUBJECTS

- For the present study fifty (50) subjects were selected out of which twenty-five (25) were Kabaddi players and Twenty- five (25) were Kho-Kho Players.

SAMPLING METHOD

- The subjects were selected by using simple random sampling method.

TOOL USED FOR THE COLLECTION OF DATA

- AAPHER youth fitness test.

ANALYSIS AND INTERPRETATION OF DATA

The statistical analysis of the gathered data for the purpose of the study ‘‘A Comparative study of physical fitness between Kabaddi and Kho-Kho players’’. The collection data was analyzed statistically to find out whether there will be any significant difference between the

mean, statistical 't' test was employed to find the difference between Kabaddi and Kho-Kho players.

LEVEL OF SIGNIFICANCE:-

To test hypothesis, the level of significance was set at 0.05 level of confidence which was considered adequate and reliable for the purpose of this study.

Comparison on Strength Variable (table 1)

S. No.	Variable	No. Of Students	Mean	Standard Deviation	't'- Value
01	Kabaddi Players	25	8.72	2.57	1.98
02	Kho-Kho Players	25	7.20	2.82	

- Significant at 0.05 level (Df=48)

Table value is =2.04

From the above table it was observed that the obtained 't' value of pull ups or variable for strength is 1.98 at 0.05 level of significance which is less than the tabulated value 't' 2.04. Hence it was concluded that the two means of Kabaddi and Kho-Kho players do not significantly differ from each other. I.e. The Kabaddi and Kho-Kho players have approximately the same strength the two means were given graphically in below figure 1.

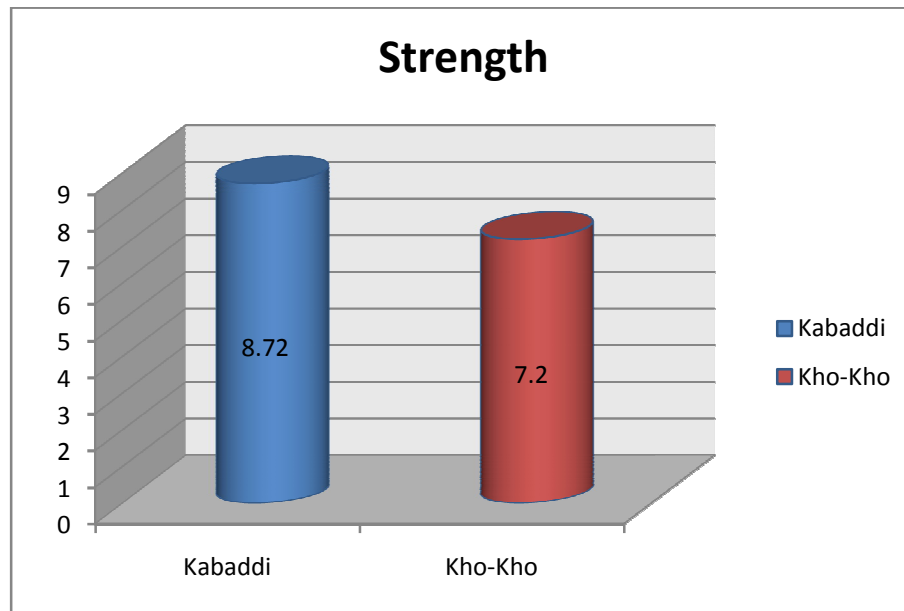


Figure 1: Comparison of Strength

Comparison of Muscular Strength (Table 2)

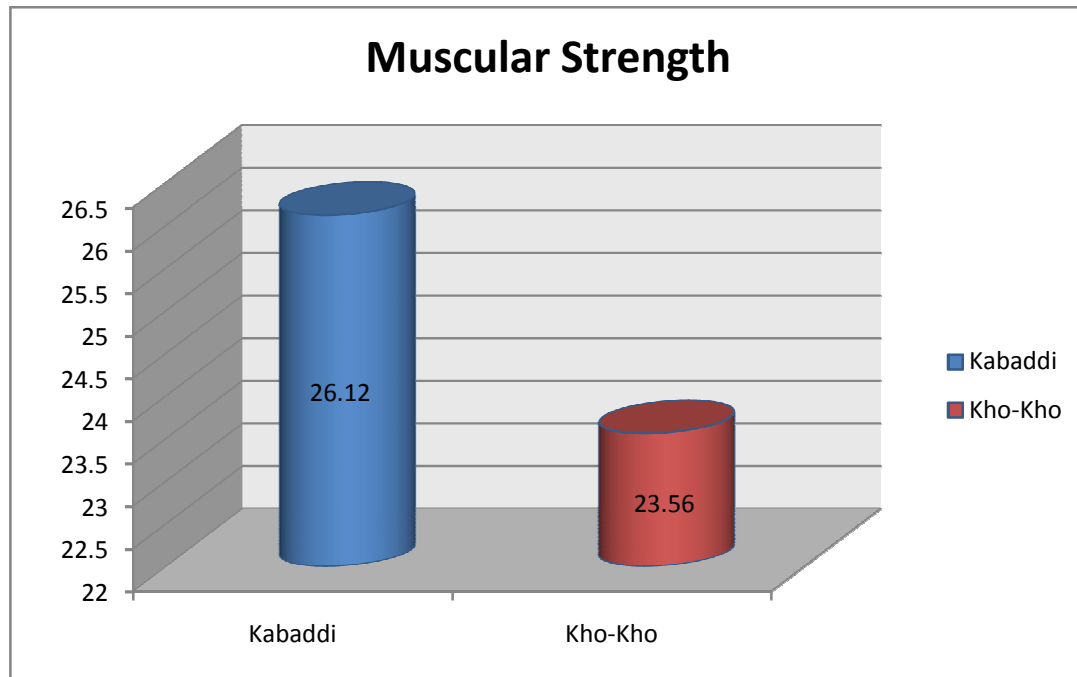
S. No.	Variable	No. Of Students	Mean	Standard Deviation	't'- Value
01	Kabaddi Players	25	26.12	4.88	1.73
02	Kho-Kho Players	25	23.56	5.51	

- **Significant at 0.05 level (Df=48)**

Table value is =2.04

From the above table it was observed that the obtained 't' value of Bent knee step ups or variable for Muscular strength is 1.73 at 0.05 level of significance which is less than the tabulated value 't' 2.04. Hence it was concluded that the two means of Kabaddi and Kho-Kho players do not significantly differ from each other. I.e. The Kabaddi and Kho-Kho players have approximately the same muscular strength the two means were given graphically in below figure 2.

Figure: 2



Comparison of Coordination ability (table 3)

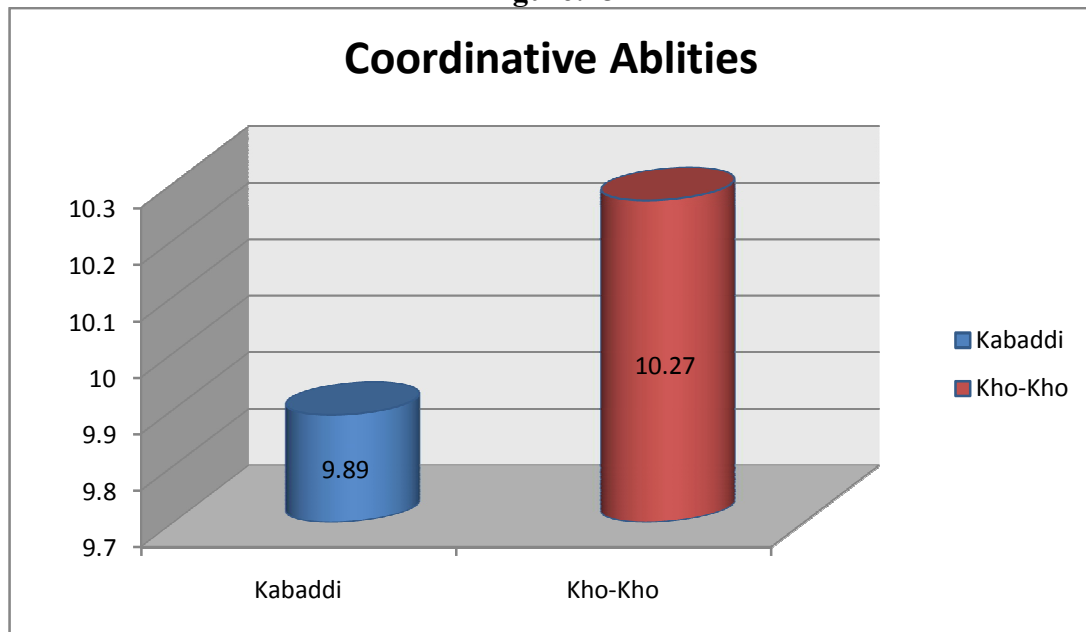
S. No.	Variable	No. Of Students	Mean	Standard Deviation	't'- Value
01	Kabaddi Players	25	9.89	2.16	0.82
02	Kho-Kho Players	25	10.27	2.16 0.63	

- Significant at 0.05 level (Df=48)

Table value is =2.04

From the above table it was observed that the obtained 't' value of Shuttle Run or variable for Coordination ability is 0.82 at 0.05 level of significance which is less than the tabulated value 't' 2.04. Hence it was concluded that the two means of Kabaddi and Kho-Kho players do not significantly differ from each other. I.e. The Kabaddi and Kho-Kho players have approximately the same Coordinative abilities the two means were given graphically in below figure 3.

Figure: 3



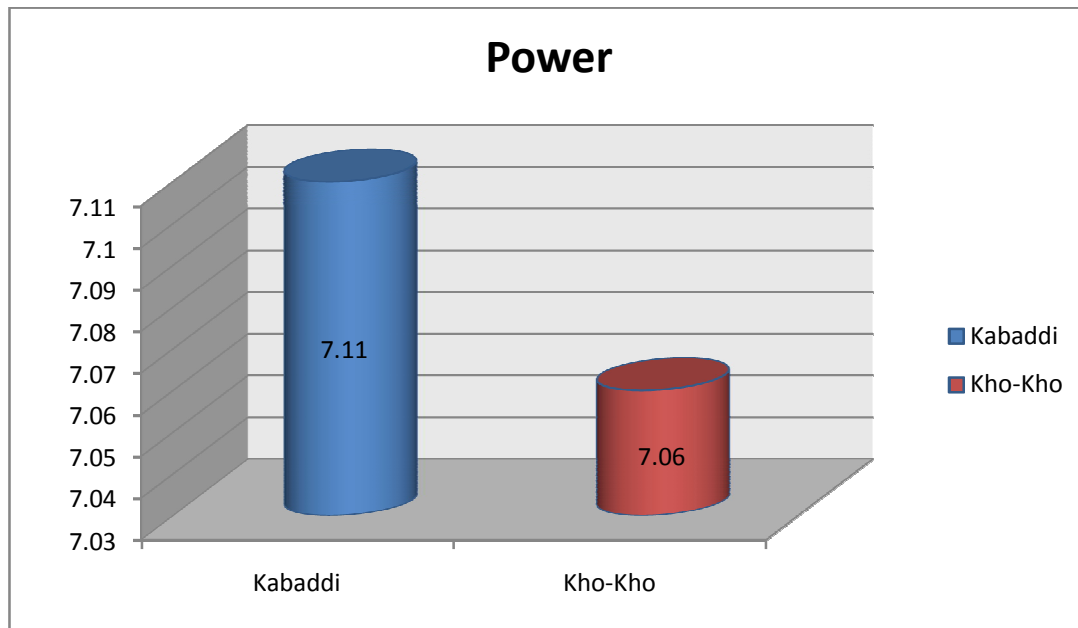
Comparison of Power (table 4)

S. No.	Variable	No. Of Students	Mean	Standard Deviation	't'- Value
01	Kabaddi Players	25	7.11	0.73	-0.20
02	Kho-Kho Players	25	7.06	0.91	

- Significant at 0.05 level (Df=48)

Table value is =2.04

From the above table it was observed that the obtained 't' value of SBJ or variable for Power is -0.20 at 0.05 level of significance which is less than the tabulated value 't' 2.04. Hence it was concluded that the two means of Kabaddi and Kho-Kho players do not significantly differ from each other. I.e. The Kabaddi and Kho-Kho players have approximately the same power the two means were given graphically in below figure 4



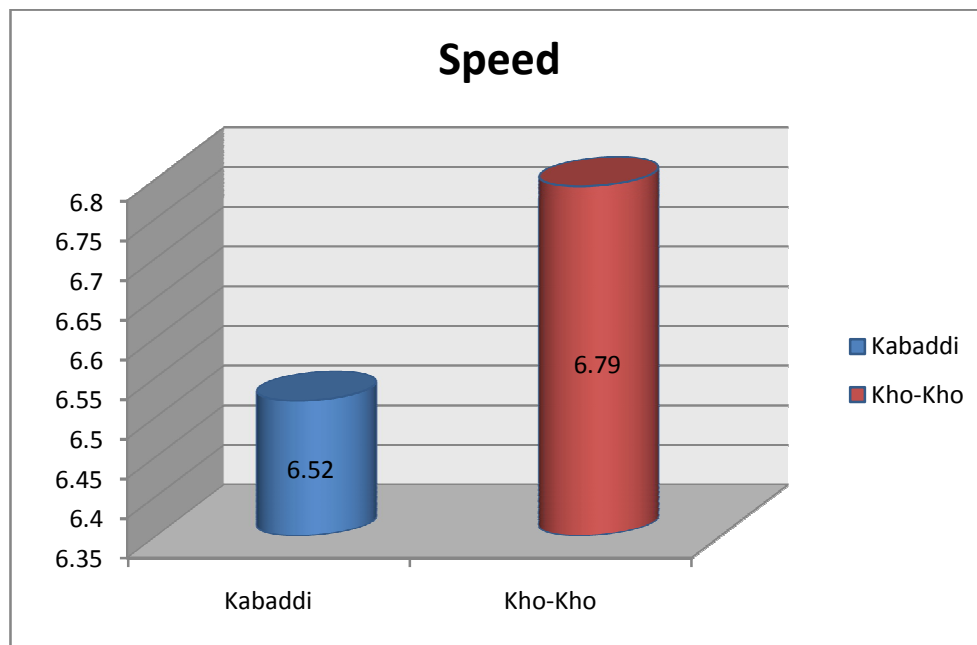
Comparison of Speed (table 5)

S. No.	Variable	No. Of Students	Mean	Standard Deviation	't'- Value
01	Kabaddi Players	25	6.52	1.45	-0.85
02	Kho-Kho Players	25	6.79	0.53	

- Significant at 0.05 level (Df=48)

Table value is =2.04

From the above table it was observed that the obtained 't' value of 50 yard dash or variable for Speed is -0.85 at 0.05 level of significance which is less than the tabulated value 't' 2.04. Hence it was concluded that the two means of Kabaddi and Kho-Kho players do not significantly differ from each other. I.e. The Kabaddi and Kho-Kho players have approximately the same Speed the two means were given graphically in below figure 5.



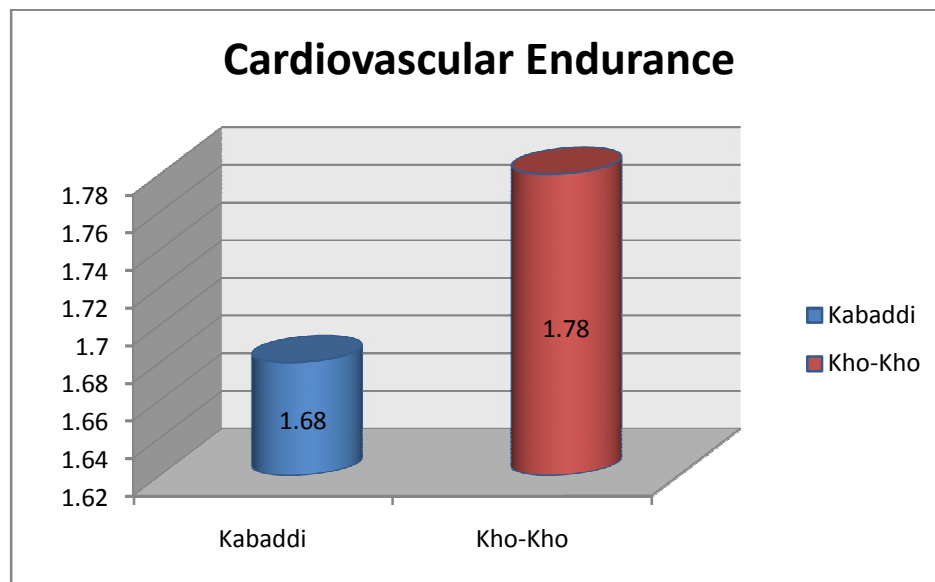
Comparison of Cardiovascular Endurance(table 6)

S. No.	Variable	No. Of Students	Mean	Standard Deviation	't'- Value
01	Kabaddi Players	25	1.68	0.47	-0.63
02	Kho-Kho Players	25	1.78	0.60	

• **Significant at 0.05 level (Df=48)**

Table value is =2.04

From the above table it was observed that the obtained 't' value of 600 yard run and walk or variable for cardiovascular Endurance is -0.63 at 0.05 level of significance which is less than the tabulated value 't' 2.04. Hence it was concluded that the two means of Kabaddi and Kho-Kho players do not significantly differ from each other. I.e. The Kabaddi and Kho-Kho players have approximately the same cardiovascular endurance the two means were given graphically in below figure 6.



CONCLUSION

Within the limitations of the present study the following conclusions were drawn

- There was no significant difference between the strength, Muscular Strength, Coordination Ability, Power, Speed and Cardiovascular Endurance of Kabaddi and Kho-Kho players of district Ganderbal.

RECOMMENDATION

On the basis of findings and conclusion the following recommendations were made

- The present study may be repeated with respect to physiological variables on the same subjects
- The present study may be taken on female subjects.
- The present study may be conducted on a large sample.
- The similar study may be undertaken with other fitness tests with different age groups

REFERENCES:

- H.D. Clear 1976 "Measurement and evaluation in physical education page 264 -265.
- Ajmer et al Essentials of physical education.
- Skinner J.S "functional effects of Physical activity (Philadelphia: Lea and Febiger 1982)
- Kansal Devinder K applied measurement education and sports selection new delhi sports publication 2008.
- Douglas Hastad N et al., Measurement And Evaluation In Physical Education & Exercise Science, US, Gorsuch Scarisbrick Publishers, 1989, 575.
- Suresh Kutty K. A Guide for U.G.C. Examination for Physical Education, New Delhi: Sports Publication, 2004, 612.