A COMPARATIVE STUDY OF MOTOR FITNESS VARIABLE BETWEEN KABADDI AND KHO-KHO MALE PLAYER IN WEST BENGAL

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ABSTRACT

The purpose of the study was to find out the level of Motor Fitness Variables among Kabaddi and Kho-Kho players of Varies Colleges of West Bengal. To achieve the purpose, players were randomly selected from Varies Colleges of West Bengal (100 players from Kabaddi and 100 players from Kho-Kho). To measure the physical fitness level of Kabaddi and Kho-Kho players Selected test battery from AAHPER youth fitness was used. The finding of the study directs that the variables of speed, Leg explosive Strength, agility, Flexibility are found significant difference among Kabaddi and Kho-Kho players. The data was statistically analyzed by applying ‘t’ test. The level of significance was fixed at 0.05. Further on conclusion it was found that the Kabaddi and Kho-Kho players were significantly differ on the variable such as speed, Leg explosive Strength, agility, Flexibility.

Keywords: AAHPER, speed, Leg explosive Strength, agility, Flexibility, Kabaddi and Kho-Kho Players.
Introduction

Physical fitness means maximum functioning of all body systems. We exercise, we move and we keep our bodies in shape and functioning. The human body is framed in such a way that a person can jump and climb and perform and perform more labor-intensive tasks. The human body becomes stronger with intensive training, and the participation of muscles is very important in its development.

Physical fitness is the ability to work efficiently with joy and pleasure without fatigue. Once the job is done, it still has enough power to do menial jobs without even trying. And recovery must happen as soon as possible. It is the correct functioning of the physiological system.

The physical shape of the player depends on the nature of the game and also on the external conditions. In fitness, there are several elements that must be developed, such as speed, explosiveness of the legs, agility and flexibility, etc. Physical exercises are those bodily functions that improve physical fitness and maintain general health. Physical fitness is a basic condition to be able to perform most tasks during sports. Today's players take a much broader perspective and see fitness as an important part of overall health. Fitness is the ability to perform activities that require muscle coordination, such as walking, running and playing, as well as using tools and machines.

Kho-Kho is an undivided ancient Indian game, probably derived from the various strategies and tactics of "Kurukshetra" in the Mahabharata. The fifth tank in the fight and the zigzag roads that follow the retreating soldiers reveal the chain formation that plays a defensive role in the Warehouse-Warehouse game. On the 13th day of the war, the leader of the Kaurav army, Guru Dronacharaya drew a typical chakrabyuha strategic formation guarding Jayadratha at the main gate with 7 soldiers to lure and kill the enemy. Bir Abhimannyu son of Arruna got into the trap but could not get out and was killed.

Kabaddi is a contact group activity that originated in ancient India. Played between two groups of seven players, the object of the game is for a single offensive player, known as a "raider", to run into the opposing team's half of the field, but reveal some of their defenders if needed, and got back in his half, all without being controlled by defenders, and with one breath. Points are scored for each player who scores, while the opposing
team provides points to stop that player. Players leave the game in the event that they are hit or dealt, but are sent off for each point their team scores from a tackle.

**Objective of the Study**

The objective of the study was to compare motor fitness variable between kabaddi and kho-kho male player in West Bengal.

**Delimitation**

- This study was delimited to university level Kabaddi and Kho-Kho players of aged 18 to 27 years.
- This study was delimited to selected physical fitness parameters only.
- This study was delimited to 200 College level male Kabaddi and Kho-Kho player from West Bengal.

**Limitation**

- The performance effect of the subjects due to their difference in physical characteristics.
- The environmental conditions also can affect the study.

**Significance of the Study**

The study will throw some light on the different physical fitness tests of Kabaddi and Kho-Kho players. The results further help coaches, physical directors, and teaching faculty in the assessment of the player’s ability to take part in different activities.

**Hypotheses**

1. It was hypothesized that there might be a significant difference in speed ability between Kabaddi and Kho-Kho players.

2. It was hypothesized that there might be a significant difference in Leg explosive Strength between Kabaddi and Kho-Kho players.

3. It was hypothesized that there might be a significant difference in agility between Kabaddi and Kho-Kho players.

4. It was hypothesized that there might be a significant difference in Flexibility between Kabaddi and Kho-Kho players.
Methodology

Selection of Subjects

For the purpose of the present study, 100 Kabaddi and 100 Kho-Kho male players (total 200 players); aged 18 to 27 years were selected as random basis from Various Colleges of West Bengal. The selected players were allowed to participate in their regular physical education classes in the Colleges as per their curriculum; but not allowed to in any kind special training or the coaching program.

Selection of the Variables

➢ Speed
➢ Leg Explosive Strength
➢ Agility
➢ Flexibility

Criterion Measures

The components of physical fitness which were selected for the present study and were measured by below flow chart-

<table>
<thead>
<tr>
<th>Motor Fitness and Psychological Components</th>
<th>Test</th>
<th>Measuring Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>50-Yard Dash</td>
<td>Seconds</td>
</tr>
<tr>
<td>Leg Explosive Strength</td>
<td>Standing Broad Jump</td>
<td>Meter</td>
</tr>
<tr>
<td>Agility</td>
<td>4 ×10 M Shuttle run</td>
<td>Seconds</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Sit And Reach Test</td>
<td>Centimeters</td>
</tr>
</tbody>
</table>

Statistical Analysis

To find out whether there was any significant difference between Kabaddi and Kho-Kho players, the Independent ‘t’ ratio was used. To test the level of significance of difference between the means 0.05 level of confidence was fixed. Numerical processing of data was evaluated using statistical programs SPSS 26.0.
Table - 2

<table>
<thead>
<tr>
<th>Players</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>F</th>
<th>Sig.</th>
<th>T</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kabaddi</td>
<td>100</td>
<td>7.3766</td>
<td>.50161</td>
<td>.05016</td>
<td>7.527</td>
<td>.007</td>
<td>-.529</td>
<td>198</td>
<td>.598</td>
</tr>
<tr>
<td>Kho-Kho</td>
<td>100</td>
<td>7.4237</td>
<td>.73655</td>
<td>.07365</td>
<td>7.527</td>
<td>.007</td>
<td>-.529</td>
<td>174.574</td>
<td>.598</td>
</tr>
</tbody>
</table>

Table - 2 shows that the mean of Speed of Kabaddi and Kho-Kho Players is 7.3766 and 7.4237 respectively. Whereas standard deviation of the Speed of Kabaddi and Kho-Kho Players is .50161 and .73655 respectively, ‘t’ value is -.529The result reveals that there is statistically significant difference in Speed between Kabaddi and Kho-Kho players. Kho-Kho players were found better in Speed as compare to Kabaddi players.

**Fig1:** The graph shows the performance of Speed of Kabaddi and Kho-Kho players

Table - 3

<table>
<thead>
<tr>
<th>Players</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>F</th>
<th>Sig.</th>
<th>T</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leg Explosive Strength</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kabaddi</td>
<td>100</td>
<td>2.2046</td>
<td>.18787</td>
<td>.01879</td>
<td>.098</td>
<td>.756</td>
<td>-5.430</td>
<td>38</td>
<td>.000</td>
</tr>
<tr>
<td>Kho-Kho</td>
<td>100</td>
<td>2.2177</td>
<td>.17089</td>
<td>.01709</td>
<td>-5.430</td>
<td>37.985</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig1: The graph shows the performance of Speed of Kabaddi and Kho-Kho players.
Table – 3 shows that the mean of the Leg Explosive Strength of Kabaddi and Kho-Kho Players is 2.2046 and 2.2177 respectively. Whereas standard deviation of the Leg Explosive Strength of Kabaddi and Kho-Kho Players is .18787 and .17089 respectively, ‘t’ value is -5.430. The result reveals that there is statistically significant difference in Leg Explosive Strength between Kabaddi and Kho-Kho players. Kho-Kho players were found better in Leg Explosive Strength as compare to Kabaddi players.

**Fig2:** The graph shows Leg Explosive Strength of Kabaddi and Kho-Kho players

Table - 4 shows that the mean of the Agility of Kabaddi and Kho-Kho Players is 9.7928 and 9.8839 respectively. Whereas standard deviation of the Agility of Kabaddi and Kho-Kho Players is .67591 and .80310 respectively, ‘t’ value is -.868. The result reveals that there is statistically significant difference in Agility between Kabaddi and Kho-Kho players. Kho-Kho players were found better in Agility as compare to Kabaddi players.

<table>
<thead>
<tr>
<th>Players</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>F</th>
<th>Sig.</th>
<th>T</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kabaddi</td>
<td>100</td>
<td>9.7928</td>
<td>.67591</td>
<td>.06759</td>
<td>1.759</td>
<td>.186</td>
<td>-.868</td>
<td>198</td>
<td>.387</td>
</tr>
<tr>
<td>Kho-Kho</td>
<td>100</td>
<td>9.8839</td>
<td>.80310</td>
<td>.08031</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table – 4 shows that the mean of the Agility of Kabaddi and Kho-Kho Players is 9.7928 and 9.8839 respectively. Whereas standard deviation of the Agility of Kabaddi and Kho-Kho Players is .67591 and .80310 respectively, ‘t’ value is -.868. The result reveals that there is statistically significant difference in Agility between Kabaddi and Kho-Kho players. Kho-Kho players were found better in Agility as compare to Kabaddi players.
Fig3: The graph shows of Agility Kabaddi and Kho-Kho players

Table - 5

<table>
<thead>
<tr>
<th>Players</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>F</th>
<th>Sig.</th>
<th>T</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kabaddi</td>
<td>100</td>
<td>38.6660</td>
<td>3.27946</td>
<td>.3273</td>
<td>.568</td>
<td>-.536</td>
<td>198</td>
<td>.593</td>
<td></td>
</tr>
<tr>
<td>Kho-Kho</td>
<td>100</td>
<td>38.9070</td>
<td>3.07926</td>
<td>.3079</td>
<td></td>
<td></td>
<td>-.536</td>
<td>197.220</td>
<td>.593</td>
</tr>
</tbody>
</table>

Table – 5 shows that the mean of the flexibility of Kabaddi and Kho-Kho Players is 38.6660 and 38.9070 respectively. Whereas standard deviation of the flexibility of Kabaddi and Kho-Kho Players is 3.27946 and 3.07926 respectively, ‘t’ value is -.536. The result reveals that there is significant difference in flexibility between Kabaddi and Kho-Kho players. Kho-Kho players were found better in flexibility as compare to Kabaddi players.
Fig 4: The graph shows Flexibility of Kabaddi and Kho-Kho players

![Graph showing flexibility comparison between Kabaddi and Kho-Kho players](image)

**Conclusion**

The Researcher dissected the gathered information according to the reason for the study. The factual examination of physical fitness variables uncovered that in the boundaries, for example, Speed, Leg Explosive Strength, Agility and Flexibility, there were critical distinctions among Kabaddi and Kho-Kho players of Varies Colleges of West Bengal. The examination additionally uncovered that the Kho-Kho players were better in Speed ability as contrast with Kabaddi players. The Kho-Kho players were better in Leg Explosive Strength and Flexibility perseverance as contrast with Kabaddi players. Similar results were founded in the study carried out by Anil Kumar et al. (2019), a comparative study on health-related fitness components of Kabaddi and Kho-Kho players. Significant difference was founded in Speed, Cardiovascular Endurance, and Flexibility. Sunil Kumar also confirms that in his study (2011), A Comparative Study on Selected Psycho-Physical Fitness Components of Kabaddi and Kho-Kho Players of Delhi Schools. Significant difference was founded for speed, flexibility, cardio-vascular endurance. The differences in physical fitness parameters between Kabaddi and Kho-Kho players may be due to difference in techniques, body posture, nature of game, and movement’s pattern etc. Finally recognizing the limitations of this study and on the basis of findings the following conclusions have been drawn-

1. There is significant difference between the Kabaddi and Kho-Kho players in Motor fitness.
Discussion of findings

Findings of the study revealed that Motor fitness was shown significant difference is between Kabaddi and Kho-Kho Players, it may be because of

1. Kho-Kho players possess higher level of Motor fitness as compared to Kabaddi players.
2. Attributed to the fact that Kho-Kho is such a sport which needs a lot of Motor fitness while perform various skills with maximum power and maximum power can only be generated while a person becomes highly Motor fitness, hence such result might have occurred in this study.

References

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