Comparative Study of Muscular Strength and Abdominal Muscular Strength of Kho-Kho Kabaddi Male Players

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Abstract
In the present study, an attempt has been made to compare the Muscular strength and Abdominal muscular of Hockey and Football male players. Only 50 Male (25 Kho-Kho and Kabaddi) students were considered. The age of the subjects were ranged from 19 to 25 years. The physical fitness components i.e.-muscular strength, abdominal strength was considered for the present study. Only those male subjects of K.U.K. were selected who have participated at minimum inter collegiate level of K.U.K. Muscular Strength of arms was measured by Pull-ups test and Abdomen Muscular Strength was measured by Flexed leg Sit- ups test. T-test was used to analysed the study.

Keywords: Abdominal Strength, Muscular Strength, K.U.K, MEN.

1. Introduction
Physical Fitness is an important as the man himself. By physical fitness, we mean fitness in terms of health and skill based performance. A person can be said to be physically fit if he has the ability to perform physical activities which required strength, flexibility or Endurance. In this fast pacing life, everyone has a very hectic schedule. A person does not get much time for himself. But if one wants to stay health and fit, he must make regular exercise a part of his life. One must schedule at least 30 minute for physical activity, physical fitness can be achieved through the need of exercise, correct nutrition and proper amount of rest. A person that does not get enough of physical activity or exercise will quickly put on weight and became fat very soon. Thus results in joining weight loss programe later on. Exercise helps in a very healthy way to make a person stay healthy way to make a person stay healthy and happy line longer. It also helps in chances of various kind of disease. One can include practise like dancing, swimming, walking, gardening, playing etc. Fitness is a key of quality of life.

2. Review of related literature
Anthony F and Plotz (2006) The aim of this study is a comparision of talented South African and English youth rugby players (18-year old) with reference to game-specific-, anthropometric- and physical and motor variables. Three groups of elite rugby players were selected from the two countries and were tested on 13 anthropometric-, six physical and motor- and eight game-specific tests. The results showed that there are no big differences as far as anthropometric variables are concerned, the English players, however, significantly demonstrated the worst results in all the physical and motor abilities while the South African players performed the best in game-specific skills due to possible better coaching.

3. Methodology
3.1 Selection of the Subjects
The subjects were selected in following basis:
- He should be male student.
- He should attain the age of 19 years and not more than 25 years.
- He should be studied in K.U.K.

3.2 Criterion Measures
The criterion measures were used to collect the data in a deal and systematic way to record in a correct unit and style for each test item.
- Muscular Strength of arms was measured by Pull-ups test and scores were recorded in numbers of pull-ups.
- Abdomen Muscular Strength was measured by Flexed leg Sit-ups test and scores were recorded in numbers of Sit-ups

3.3 Statistical Techniques Used
For the present study, the mean value, standard deviation, ‘t’ test were applied to analyze the data, different steps in ‘t’ test were used and the final conclusions was drawn and it was also compared with the significant value at .05 level of confidence with 99 degree of freedom. The utilization of mean values, standard deviation and “t” test were made according to the requirement of the present study as per the statistical technique.

4. Result and Interpretation
The mean score (13.68±2.88) of the strength component of physical fitness of Kabaddi players is high than the mean score (11.96±2.15) of Kho-Kho players. However, the t-ratio is 2.39, which is significant at 0.05 level. High score better strength. It means that Kabaddi plaers have better muscular strength of physical fitness than the Kho-kho players. Therefore, the null hypothesis of significant difference in the level of strength of Kabaddi and Kho-Kho players will be rejected.

Table 4.1. Comparison of muscular Strength Component of Kabaddi and Kho-Kho Male Players in Pull-Ups.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Kabaddi</th>
<th>Kho-Kho</th>
<th>SEd.</th>
<th>t-ratio</th>
<th>Level of significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscular Strength</td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
<td></td>
</tr>
<tr>
<td>(Pull ups)</td>
<td>13.68</td>
<td>2.88</td>
<td>11.96</td>
<td>2.15</td>
<td>.71</td>
</tr>
</tbody>
</table>

*Significant at .05 level

Fig. 4.1. Comparison of muscular Strength Component of Kabaddi and Kho-Kho Male Players in Pull-Ups.

Fig. 4.2. Comparison of Strength Component of Kabaddi and Kho-Kho Male Players in Flexed Leg Sit-Ups.
Table 4.2. Comparison of Abdominal Strength Component of Kabaddi and Kho-Kho Male Players in Flexed Leg Sit-Ups.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Kabaddi Mean</th>
<th>Kabaddi S.D.</th>
<th>Kho-Kho Mean</th>
<th>Kho-Kho S.D.</th>
<th>SEd.</th>
<th>t-ratio</th>
<th>Level of significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal Strength</td>
<td>22.88</td>
<td>3.25</td>
<td>19.36</td>
<td>7.70</td>
<td>1.59</td>
<td>1.83</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

The mean score (22.88±3.25) of the strength component of physical fitness of Kabaddi players is high than the mean score (19.36±7.70) of Kho-Kho players. However, the t-ratio is 1.83, which is not significant at 0.05 level. High score better strength. It means that Kabaddi players have better Abdominal strength of physical fitness than the Kho-Kho players. Therefore, the null-hypothesis of significant difference in the level of strength of Kabaddi and Kho-Kho players will be accepted.

5. Conclusion
On the basis of the analysis of data the Kho-Kho players were having better mean values muscular strength and Abdominal strength than Kabaddi male players. Kabaddi players were having better mean values among strength than the Kho-Kho male players.

6. Reference