A comparative study of general motor abilities of handball and hockey players

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Abstract
The purpose of the study was to determine and compare different general motor abilities of national/interuniversity level handball and hockey players of Haryana. A random sampling of 50 (25 from each game) male players of these games were selected from different district of Haryana at national/interuniversity level, between the age group of 18-24 years. Only three test items named medicine ball throw, 60 yard dash and standing broad jump were tested on different team game players. The data were collected through Barrow General Motor Ability test and t-test was applied to find the result of motor abilities. After analyzed the data it observed that Handball players are better in shoulder strength and explosive power of legs. Hockey players are more speedy than handball players.

Keywords: Shoulder strength, Speed, Explosive power of legs, Handball and Hockey players

Introduction
General motor ability has been considered as ones level of ability in a wide range of activities. It has been thought as an integrated composite of such individual traits as strength, endurance, power, speed, agility, balance, reaction time, and coordination traits underlying performance in many motor complexes and these traits function in a coordinated manner and in effective sequence to achieve an accurate and efficient movement” (Prof. Youb).

Basketball, handball, volleyball, football, hockey and netball are athletic games involving its participants in arrangement of demanding motor skills. The team game contributes to the group efforts of the players. This term used to identify those games in which a group of players representing in a single unit may participate with another group or team of players equal to them. Amongst the most popular team games are handball, hockey, netball, cricket, korfbal, football, volleyball and basketball. Speed means the capacity of moving a body part or whole body with the greatest possible speed or velocity. Different games develop speed differently. All most all games require fast and explosive movements.

Laxmi Sharma (2011) took a comparative study on Kho-Kho and Kabaddi male players which falls in the age group of 17-27 years. She conducted Barrow Motor Ability Test to measure the status of both team players.
She observed the variables of test battery like standing board jump, 60 yard dash, softball throw and Zig-Zag run and found that Kho-Kho players significant better in standing board jump, 60 yard dash, softball throw and Zig-Zag run as compare to Kabaddi players. No significant difference found in Medicine Ball Put and Wall Pass test.

Methodology
The purpose of the study was to analyze and compare the general motor abilities variables between handball and hockey male players. To achieve the purpose of the study 25 handball and 25 hockey of Haryana were selected. The age of the selected subjects ranged from 18 to 24 years. Barrow General Motor ability test items were used to collect the data and t-test was applied to find the result of motor abilities.

Results and discussion

Table 1: Medicine Ball Throw Test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean(ft)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handball</td>
<td>25</td>
<td>37.21</td>
<td>3.742</td>
</tr>
<tr>
<td>Hockey</td>
<td>25</td>
<td>34.56</td>
<td>3.381</td>
</tr>
</tbody>
</table>

As shown in Table-1 that the mean score of Medicine ball throw of Handball and Hockey players are 37.21 and 34.56 respectively and SD of Medicine ball throw of Handball and Hockey players are 3.742 and 3.381 and ‘t’-value is 2.625 for significant at 0.05 level. It means that handball players are better than hockey in shoulder strength at national/interuniversity level. In handball, players used to throw the ball in every movements of game that is the only reason, shoulder muscles became stronger then hockey players.

Table 2: 60 yard dash test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean(sec.)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handball</td>
<td>25</td>
<td>7.55</td>
<td>0.479</td>
</tr>
<tr>
<td>Hockey</td>
<td>25</td>
<td>7.92</td>
<td>0.349</td>
</tr>
</tbody>
</table>

As shown in Table-2 that the mean score of 60 yard dash test of Handball and Hockey players are 7.55 and 7.92 respectively and SD of 60 yard dash test of Handball and Hockey players are .479 and .349 and ‘t’-value is-3.195 for significant at 0.05 level. It means that hockey players better than Handball in speed at national/interuniversity level. The size of hockey field is larger than handball court and hockey players used to run in every movement of game. Long counter attack is another reason of this.

Table 3: Standing Broad Jump Test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean(ft)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handball</td>
<td>25</td>
<td>7.46</td>
<td>0.375</td>
</tr>
<tr>
<td>Hockey</td>
<td>25</td>
<td>7.03</td>
<td>0.632</td>
</tr>
</tbody>
</table>

As shown in Table-3 that the mean score of Standing Board jump of Handball and Hockey players are 7.46 and 7.03 respectively and SD of Standing Board jump of Handball and Hockey players are .375 and .632 and ‘t’-value is 3.156 for significant at 0.05 level. It means that handball players better than Hockey in explosive power of legs at national/interuniversity level. During the game, lots of jumping skills performed by handball players.

References