Comparative study of selected physical fitness component between rural and urban female hockey players

Surinder Singh and Dr. Pritam Singh

Abstract
The main purpose of the study was undertaken to evaluate the selected physical fitness component between rural and urban female hockey players. For this study total 42 girl’s player were selected in two groups. The age of subject was U-19. Rural group (N-21) selected from Sant Baba Bhag Singh International School Khiala Jalandhar and the Urban group (N-21) was selected from Doaba Khalsha Senior Secondary School Jalandhar. Data was collected from the training session before the District competition of PSEB. To measure the physical fitness component Speed we used 30 meter dash test, for Strength we used standing broad jump and for Power we used overhead medicine ball throw. The collected data of both groups were put to statistical treatment applying t’ test to find out the differences, the level of significance was set at 0.05. The result shows that there was a significance difference on speed power and strength.

Keywords: Physical fitness, hockey, girls, rural, urban

Introduction
Physical Fitness is a general state of health and, well being and more specifically, the ability to perform aspects of Sports or occupations. Different people have different opinions regarding physical fitness. For a common man to have a good physique is a symbol of physical fitness. Physical fitness is more than the possession of strength and endurance, it means having the best possible health with the capacity to do one everyday task to engage in recreational pursuits and to meet emergencies when they arise(Gupta Dr. V) [1].

Hockey, sometimes termed as field hockey, is a stick-and-ball game, played by men and women throughout the world. It played between two teams, each team having 11 players including one goal keeper and one captain. Game lasts for 70 minutes and this period divided into two halves each having duration of 35 minutes at intervals. Teams are allowed to change their ends. It is very difficult to pinpoint the exact year and its founders. However, about the game it is only known that it has derived its name from an old French word ‘hoquet’, which means shepherd’s curved. It has obtained world wide popularity and in many leading countries of the world this game is being played (Nagi K) [2] the process which helps in preparing an individual for any event or activity is said to be training. In the field of games and sports, that process which helps in preparing sports-persons to participate in competitions and tournaments of various levels is known as sports training. The scientific and systematic channel of preparation of players for highest level of sports performance is known as sports training (Singh V) [3].

Speed is the ability to move quickly across the ground or move limbs rapidly to grab or throw. Muscular strength is the amount of force that your muscles can exert against resistance and the ability to carry out work against a resistance.

Power the ability to exert a maximal force in as short a time as possible, as in accelerating, jumping and throwing implements.

Statement
The statement of problem is “Comparative study of selected physical fitness component between rural and urban female hockey players”.

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Selection of subjects
The study was formulated based on the simple random sampling. The Subjects were selected U-19 girl’s hockey players from.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural group</td>
<td>21</td>
<td>Sant Baba Bhag Singh International School Khiala</td>
</tr>
<tr>
<td>Urban group</td>
<td>21</td>
<td>Doaba Khalsha Senior Secondary School Jalandhar</td>
</tr>
</tbody>
</table>

Objective of study
1. To measure the selected physical fitness component of U-19 girls hockey players of SBBS International School and Doaba Khalsha Senior Secondary School Jalandhar.
2. To finds out the differences on selected physical fitness component between rural and urban female hockey players

Hypothesis
1. There is no significant difference on speed between rural and urban female hockey players
2. There is a significant difference on strength and power between rural and urban female hockey players

Limitation
1. No special motivational technique was used during the test.
2. The investigator was unable to control their diet and rest schedules.

Delimitations
1. The study was delimited to only U-19 years age group.
2. The study was delimited to SBBS International School and Doaba Khalsha Senior Secondary School Jalandhar.

Methodology
The present study under investigation selected physical fitness variables and test performed are:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variables</th>
<th>Test</th>
<th>Measure in</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Speed</td>
<td>30 meter dash</td>
<td>Seconds</td>
</tr>
<tr>
<td>02</td>
<td>Strength</td>
<td>Standing broad jump</td>
<td>Meter</td>
</tr>
<tr>
<td>03</td>
<td>Power</td>
<td>overhead medicine ball throw (5kg)</td>
<td>Meter</td>
</tr>
</tbody>
</table>

All the selected 42 subjects in the training session before the District competition of PSEB the Selected physical fitness test was measured and recorded. The practice was normal type under supervision of Sports teacher

Statistical procedure
The data was analyzed and compared with the help of statistical procedure in which arithmetic mean, standard deviation and “t” test was used to compare the data of rural and urban female hockey players

Results

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>DF</th>
<th>‘T’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>21</td>
<td>6.34</td>
<td>0.24</td>
<td>0.47</td>
<td>40</td>
<td>3.98</td>
</tr>
<tr>
<td>Urban</td>
<td>21</td>
<td>6.81</td>
<td>0.47</td>
<td>0.47</td>
<td>40</td>
<td>3.98</td>
</tr>
</tbody>
</table>

As per the above table show that there is a significant difference on Speed between rural and urban female hockey players

Fig 1: Show that there is a significant difference on Speed between rural and urban female hockey players.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>DF</th>
<th>‘T’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>21</td>
<td>1.44</td>
<td>0.22</td>
<td>0.21</td>
<td>40</td>
<td>4.00</td>
</tr>
<tr>
<td>Urban</td>
<td>21</td>
<td>1.23</td>
<td>0.06</td>
<td>0.21</td>
<td>40</td>
<td>4.00</td>
</tr>
</tbody>
</table>

As per the above table show that there is a significant difference on Strength between rural and urban female hockey players

Fig 2: Show that there is a significant difference on Strength between rural and urban female hockey players.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>DF</th>
<th>‘T’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>21</td>
<td>2.62</td>
<td>0.29</td>
<td>0.38</td>
<td>40</td>
<td>3.30</td>
</tr>
<tr>
<td>Urban</td>
<td>21</td>
<td>2.24</td>
<td>0.42</td>
<td>0.38</td>
<td>40</td>
<td>3.30</td>
</tr>
</tbody>
</table>
As per the above table, it shows that there is a significant difference on power between rural and urban female hockey players.

**Fig 3:** Show that there is a significant difference on Power between rural and urban female hockey players

**Conclusion**
As per the collected data, we find that there is a significant difference on speed between rural and urban female hockey players. There is a significant difference on strength between rural and urban female hockey players. There is a significant difference on power between rural and urban female hockey players.

**References**