Relationship among physical fitness component between Haryana and Delhi male boxers

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Abstract
The purpose of the study was to find out the correlation among physical fitness component between Haryana and Delhi male boxers. A total of 100 district level male boxers 50 (Haryana) and 50 (Delhi). Their ages are ranged between 17 to 24 years. To measure the speed (50 mt. dash test), arm and shoulder strength (pull-up strength), abdominal strength (sit-up test), reaction test (nelson hand reaction test), Coordination (alternative hand eye coordination test) and balance (strick stock stand test) was used to measure these physical fitness components. To determine the statistically significant relationship between Haryana and Delhi male boxers were established by computing coefficient of correlation. For testing the hypothesis, the level of significance was set at 0.05 level.

Keywords: Muscular strength, Abdominal strength, Coordination, Male, Boxers.

Introduction
It is a hard fact that physically fit people are in a better position to bear the rigorous and abnormal stress and strain, than those who are less physically fit. Fleishman used the term ‘physical fitness’ to mean functional capacity of individual to perform certain kind of task requiring muscular activity. Physical fitness is a multifaceted continuum extending from birth to death, affected by physical activity. A person who does not enjoy healthful living is a burden not only on himself but also on his nation and on the human society as well. Where a person who has a good health is assets and without health one cannot enjoy the blessing of nature and human life.

Objective of the study
1. To find out the relationship among speed with muscular strength, abdominal strength, agility, reaction test, coordination and balance between Haryana and Delhi male boxers.
2. To find out the relationship among agility with muscular strength, abdominal strength, speed, reaction test, coordination and balance between Haryana and Delhi male boxers.

Hypotheses of the study
1. There will be no significant correlation between speed with muscular strength, abdominal strength, agility, reaction test, coordination and balance between Haryana and Delhi male boxers.
2. There will be no significant correlation between agility with muscular strength, abdominal strength, speed, reaction test, coordination and balance between Haryana and Delhi male boxers.

Methodology
A total of 100 district level male boxers 50 (Haryana) and 50 (Delhi). Their ages are ranged between 17 to 24 years. To measure the speed (50 mt. dash test), arm and shoulder strength (pull-up strength), abdominal strength (sit-up test), reaction test (nelson hand reaction test), coordination (alternative hand eye coordination test) and balance (strick stock stand test) was used to measure these physical fitness components. To determine the statistically significant relationship between Haryana and Delhi male boxers were established by computing coefficient of correlation. For testing the hypothesis, the level of significance was set at 0.05 level.
Result and Interpretation

Table 1: Relationship between speed and other component of fitness of Haryana and Delhi male boxers

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Components Correlated</th>
<th>Coefficients of Correlation (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Speed and Arm and Shoulder Strength</td>
<td>-0.010</td>
</tr>
<tr>
<td>2.</td>
<td>Speed and Abdominal Strength</td>
<td>0.70</td>
</tr>
<tr>
<td>3.</td>
<td>Speed and Reaction Time</td>
<td>-0.069</td>
</tr>
<tr>
<td>4.</td>
<td>Speed and Coordination</td>
<td>-0.050</td>
</tr>
<tr>
<td>5.</td>
<td>Speed and Balance</td>
<td>0.133*</td>
</tr>
</tbody>
</table>

*Significant at 0.05 level

It may be observed from table that speed was significantly related to physical fitness component of balance (.133) of the Haryana and Delhi male boxers. Whereas other components of physical fitness arm and shoulder strength (r=-0.010), abdominal strength (r=0.70), reaction time (r=-0.069), coordination (r=-0.050), did not show any statistically significant coefficients of correlation with arm and shoulder strength of Haryana and Delhi male boxers.

Graph 1: Graphical representation of correlation between speed and other component of fitness of Haryana and Delhi male boxers

Table 2: Relationship between agility and other component of fitness of Haryana and Delhi male boxers

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Components Correlated</th>
<th>Coefficients of Correlation (r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Agility and Arm and Shoulder Strength</td>
<td>0.065</td>
</tr>
<tr>
<td>2.</td>
<td>Agility and Abdominal Strength</td>
<td>-0.049</td>
</tr>
<tr>
<td>7.</td>
<td>Agility and Reaction Time</td>
<td>0.093</td>
</tr>
<tr>
<td>8.</td>
<td>Agility and Coordination</td>
<td>0.131*</td>
</tr>
<tr>
<td>9.</td>
<td>Agility Extension and Balance</td>
<td>0.064</td>
</tr>
</tbody>
</table>

*Significant at 0.05 level

It may be observed from table 13 that agility was significantly related to physical fitness component of coordination (r=0.131) of the Haryana and Delhi male boxers. Whereas other components of physical fitness arm and shoulder strength (r=-0.065), abdominal strength (r=-0.049), reaction time (r=0.093), coordination (r=-0.131, balance (r=-0.064) and accuracy (r=0.007) did not show any statistically significant coefficients of correlation with agility of Haryana and Delhi male boxers.

Graph 2: Graphical representation of correlation between agility and other component of fitness of Haryana and Delhi male boxers

Conclusion of the study
1. Agility was significantly related to physical fitness component of coordination Whereas other components of physical fitness arm and shoulder strength, abdominal strength, reaction time, coordination and balance did not show any statistically significant coefficients of correlation with agility Haryana and Delhi male boxers.
2. Speed was significantly related to physical fitness
component of balance. Whereas other components of physical fitness, arm and shoulder strength, abdominal strength, reaction time and coordination did not show any statistically significant coefficients of correlation with arm and shoulder strength of Haryana and Delhi badminton male boxers.

**Bibliography**

1. Motor fitness variables of agility, flexibility, reaction time, strength and explosive power (SBJ), showed significant relationship with smash skill of boys badminton players.
2. Insignificant correlation was observed between smash skill and speed, balance, explosive power (VJ) of boys badminton players.
3. Motor fitness variables of speed, agility, explosive power (VJ, SBJ), showed significant relationship with smash skill of girls badminton players.
4. The Motor fitness variables of strength, balance, flexibility, reaction time for girls badminton players did not show any significant relationship with smash skill of girls badminton players.

**References**

5. Tergerson RL. The relationship of selected measures of wrist strength, vision and general motor ability to badminton playing ability. Completed Research in Health Physical Education and Recreation, 1965, 7(77).