Relationship of leg length foot length and leg strength on young male

Proloy Karmokar and Jayanta Kumar Khatua

Abstract
The purpose of the study was to examine the relationship of leg length, foot length and leg strength on young male. Thirty (N=30) young male subjects were randomly selected from the Purba Medinipur district of west Bengal. The ages ranged of the subjects were 21-25 years. In this study leg length was measured by anthropometric rod in centimeters, foot length was measured by freeman tape in centimeter and leg strength was measured by standing broad jump in centimeter. Collected data on leg length and leg strength were statistically treated through calculation of mean, S.D. and coefficient correlation for interpretation, analysis and discussion. Level of significance was chosen at 0.05% level of confidence. For statistical calculation SPSS software 19.0 version was used. The result of the present study revealed no significance relationship in leg length, foot length and leg strength on young male.

Keywords: Leg length, foot length, leg strength and young male.

1. Introduction
Morphological characteristics have an important role to play in the performance of various physical activities. It shows that performance is significantly related to body weight, height, arm length, thigh and calf circumference and other.

Nutritional needs of adolescents in place of chronological age. Children grow of different rates. It is also such different children also develop at different rates. So there will be easily and late developers. Not only are the rates of growth different but also the changes in the body proportions can vary. It will directly affect the ability to Perform. It should knowledge of processors of growth and development will enable coaches and physical education teachers who are working with children, to organize the training programs that will be more beneficial to the children from a physical and psychological perspective.

The most obvious benefits of Strong, healthy, muscles is the ability to perform daily tasks efficiently and effectively, Which Contributes to a Healthy lifestyle. The importance of strength and power in the majority of sports is well accepted and early identification of high power levels can be a useful tool for talent identifications, Strength diagnosis and development of sport specific Profile. According to Aragon – “Vargas vertical jump tests are common in physical education, fitness, and sports programs, as a means to assess lower limb power”.

Numerous researches have shown that the vertical jump strongly correlates with Explosive Leg Power many coaches will measure vertical jump to estimate explosive leg power.

1.1 Purpose of the Study
The purpose of the study was to find out the relationship between leg lengths, foot length and leg strength on young male.

2. Methodology
Thirty (N=30) young male subjects were randomly selected from the Purba Medinipur district of west Bengal. The ages ranged of the subjects were 21-25 years. In this study leg length was measured by anthropometric rod in centimeters, foot length was measured by freeman tape in centimeter and leg strength was measured by standing broad jump in centimeter. Collected data on leg length and leg strength were statistically treated through calculation of mean, S.D. and discussion. Level of significance was chosen at 0.05% level of confidence. For statistical calculation SPSS software 19.0 version was used.
### Table 1: Mean standard deviation and Correlation of coefficient of leg strength and leg length on young male

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
<th>r</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leg Strength</td>
<td>2.13</td>
<td>0.15</td>
<td>-0.17</td>
<td>No significant</td>
</tr>
<tr>
<td>Leg Length</td>
<td>0.91</td>
<td>0.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*r* value required to be significant at 0.05 level of Confidence was 0.361

![Fig 1: Graphical representation of mean and standard deviation of leg strength and leg length on young male](image)

### Table 2: Mean standard deviation and Correlation of coefficient of leg strength and foot length on young male

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
<th>R</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leg Strength</td>
<td>2.13</td>
<td>0.15</td>
<td>-0.15</td>
<td>No significant</td>
</tr>
<tr>
<td>Foot Length</td>
<td>0.24</td>
<td>0.01</td>
<td>-0.15</td>
<td></td>
</tr>
</tbody>
</table>

*r* value required to be significant at 0.05 level of Confidence was 0.361

![Fig 2: Graphical representation of mean and standard deviation of leg strength and foot length on young male](image)

### 3. Discussion of Findings

From the result of the study negatively no significant relationship was found in leg length and foot length in respect to leg strength on young male. Foot length has been found to be no significant and negative correlation which suggests that foot length are not increase leg strength but help to jump and base of support. Anthropometric properties as well as appropriate physical fitness (leg strength) are important prerequisites for outstanding performance of sports skills and play a distinguished role in sports to successful achievements. Strength is very important in every individual as well as field of sports like kho-kho, Kabaddi, volley ball etc.

### 4. Conclusion

Within the limitations of the present investigation the conclusions was drawn on the basis of the obtained results: leg length and foot length in respect to leg strength on young male does not related significantly.

### 5. References

2. Manmeet Gill, Nishan Singh Deol, Ramanjit Kaur U, S.G.G.S College, Sector 26, Chandigarh, India Department of Physical Education, Punjabi University, Patiala, Punjab, India.