A COMPARATIVE STUDY OF PHYSICAL FITNESS OF STATE LEVEL MEDALIST & NON-MEDALIST WEIGHT LIFTERS

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ABSTRACT:
The purpose of this study was to compare the Physical Fitness components of State level Medalist & Non-medalist weight lifter’s. A total of 48 state level medalist & non-medalist weight lifters were selected (24 Medalist, 24 Non-medalist) from different districts of Haryana State. Haryana State weight lifting tournament held at Palwal from 1st Feb. to 3rd Feb. 2008 in men section. In this study the Physical fitness of the weight lifters was studied in terms of Endurance, Strength, Power, Speed, Agility and Flexibility. The six elements of Physical fitness were studied with the help of different tests. The present study have been analysed with the help of mean SD, SEM and the comparison between the groups was done with the help of ratios. The study reveled that on the basis of t-test applied the finding of the study calculated the medalist and non-medalist weight lifters show a significance difference in possessing the speed and agility, power, strength, flexibility and endurance. The medalist weight lifters, were found significantly possessing higher degree of speed ability, agility ability, power ability, flexibility ability and endurance ability as compare to non-medalist weight lifter.

KEY WORDS: Physical fitness, components, endurance, speed, strength, power, agility & flexibility.

INTRODUCTION
Physical fitness in the ability of the organism to make adequate physical and emotional adjustment of the demand of every day. Therefore, the concept of Physical fitness in terms of daily requirement which are assented to carry out his job effectively but also is left with every to their himself in leisure time pursuit in addition to meet unforeseen emergencies. Physical fitness is the most important factor for the progress in the general life as well as, field of sports if the citizens of the country want to improve in any field may be sports or general life. Physical fitness is essential. It is therefore the responsibility of every country to promote physical fitness of its
citizens because physical fitness is the basic requirements for the tasks to be under taken by an individual in his life.

MATERIAL AND METHOD:
Participant (N. 48) State Level Medalist and Non-medalist weight lifters were selected (24 medalist, 24 non-medalist) from different districts of Haryana State. Haryana state weight lifting tournament held at Palwal from Ist Feb. to 3rd Feb. 2008 in men section. All participant were informed of the procedure and purpose the experiment and were required to sign and important consent to participate in the study.

Instrumentation:
Keeping in view the research criteria of availability, reliability and validity the following tools were used to collect the data. To test the physical fitness Zig-Zag run test, eight pounds test, Broad Jump, Bend & Reach Test and Coopers’ 12 minutes run/walk test were used.

The selected physical fitness components speed, strength, endurance, flexibility were measured by different means and method. Speed and agility were measured by zigzag run test, power were measured by standing broad jump test, strength measured by eight pounds shot-put test, flexibility measured by bend & reach test and endurance was measured by co-opers’s 12 minutes run/walk tests.

Data Analysis:
The present study have been analyzed with the help of Mean, SD, SEM and the comparison between the groups was done with the help of t-ratios.

Result & Discussion:
In the present study analysis and interpretation of the data and result obtained through the application of statistic of analysis are presented. This part is devoted to the comparative result of the groups medalist & non-medalist group of selected Physical fitness components.

The result have been discussed in two sections. Section-I deal with the statistical description of test score of medalist and non-medalist group comparative result of Medalist and Non-medalist groups of this study on all the components have been discussed with the help of t-ratio in section II.

Section-I:
Statistical Decryption of Medalist and Non-medalist test means score.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Variable</th>
<th>Medalist Mean</th>
<th>Medalist SD</th>
<th>Non-Medalist Mean</th>
<th>Non-Medalist SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Speed &amp; Agility</td>
<td>22.77</td>
<td>.25</td>
<td>24.59</td>
<td>.77</td>
</tr>
<tr>
<td>2</td>
<td>Power Test</td>
<td>3.47</td>
<td>.24</td>
<td>2.57</td>
<td>.30</td>
</tr>
<tr>
<td>3</td>
<td>Strength Test</td>
<td>11.77</td>
<td>1.02</td>
<td>9.14</td>
<td>.88</td>
</tr>
<tr>
<td>4</td>
<td>Flexibility Test</td>
<td>16.42</td>
<td>1.64</td>
<td>9.75</td>
<td>1.75</td>
</tr>
<tr>
<td>5</td>
<td>Endurance Test</td>
<td>3.65</td>
<td>.35</td>
<td>2.94</td>
<td>.55</td>
</tr>
</tbody>
</table>
Table 1 reveals the test mean score of Medalist group on the physical variable are being described statistical. The physical variable i.e. speed & agility test, power test, strength test, flexibility test and endurance test respectively hence given mean value 22.77, 3.47, 11.77, 16.42 and 3.65 respectively in the same way. Non medalist group mean value 24.59, 2.57, 9.14, 9.75 and 2.94 respectively with SD .77, .30, .88, 1.75 and .55

SECTION-II
COMPARISON BETWEEN MEDALIST AND NON-MEDALIST GROUP

This section presents the comparison of medalist and non-medalist group on all the selected physical fitness components. The comparison are presented in Table No. 2. Significance of difference between means score of medalist and non-medalist group on all variables.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Variable</th>
<th>Medalist</th>
<th>Non-Medalist</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Speed &amp; Agility</td>
<td>22.77</td>
<td>24.59</td>
<td>7.72</td>
</tr>
<tr>
<td>2</td>
<td>Power Test</td>
<td>3.47</td>
<td>2.57</td>
<td>11.10</td>
</tr>
<tr>
<td>3</td>
<td>Strength Test</td>
<td>11.77</td>
<td>9.14</td>
<td>9.61</td>
</tr>
<tr>
<td>4</td>
<td>Flexibility Test</td>
<td>16.42</td>
<td>9.75</td>
<td>13.61</td>
</tr>
<tr>
<td>5</td>
<td>Endurance Test</td>
<td>3.65</td>
<td>2.94</td>
<td>5.22</td>
</tr>
</tbody>
</table>

* P < 0.01

![Comparative status of Means scores of Medalist and Non-Medalist Weight Lifter Group on all variables](chart.png)
A perusal of table-2 reveals the significance of difference between mean score of medalist and non-medalist group on all the physical fitness components. Amongst physical comparison has been shown statistical significance difference (P<.01) are found on speed & agility test, power test, strength test, flexibility test and endurance test with t = 7.22, 11.10, 9.61, 13.61 and 5.22 respectively.

As per the results depicted in Table No.2 shows statistical significance of difference between medalist and non-medalist group on the physical fitness components i.e. speed & agility, power, strength, flexibility and endurance and table -1. Test mean score of Non-medalist group of all physical fitness components have been presented statistically. The component i.e. speed & agility, power, strength, flexibility and endurance with mean value 24.59, 2.57, 9.14, 9.75 and 2.94 respectively have give S.D .77, .30, .88, 1.75 and .55 respectively.

In table No. 2 post test mean score of medalist group of all physical components have been presented statistically. The components i.e. speed and agility, power, strength, flexibility and endurance with mean value 22.77, 3.47, 11.77, 16.42 and 3.65 respectively have given SD .85, .24, 1.02, 1.64 and 2.94.

CONCLUSION :
The findings of the study can be concluded as under: On the basis of t test applied the finding of the study concluded that medalist weight lifter and non-medalist show a significant different in possessing the speed & agility, power, strength, flexibility and endurance. The medalist weight lifter were found significantly possessing higher degree of speed ability, agility ability, power ability, flexibility ability and endurance ability, as compare to non-medalist weight lifter.

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