Comparison of agility and endurance between hostellers and non hostellers of GGV (Central University) Bilaspur male volleyball players

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Abstract
The purpose of the study was to compare the agility and endurance between the hostlers and Non-Hostlers Male volleyball players of GGV (Central University), Bilaspur, Chhattisgarh. To fulfill the objective of the study 30 volleyball players (15 each) of GGV Bilaspur were selected. The age of the selected subjects ranged from 21 to 28 years. Only (Agility and Endurance tests) were used to measures the selected physical fitness variables of the players. In order to analyze the data independent t-test was used. After the analyze of the data, results indicates significant different between the Hostlers and Non-Hostlers Male volleyball players of Bilaspur.

Keywords: Physical fitness, hostlers, non hostlers and volleyball

Introduction
Physical fitness is the capacity of an individual to do work effectively with joy and pleasure. After the work is over, he still has sufficient capacity to do more work without any exertion. Moreover; his recovery is faster and quicker. Physical fitness is ability to perform daily task with energy and alertness without under fatigue and still enjoy leisure time pursuits and to meet the unpredicted Emergencies. Physical fitness is defined as a set of ability to carry out physical ability (Rao, 2010) [11].

Physical fitness varies from person to person, place of work, and change with time and situation. It is an interaction between the daily activities, and the fitness of an individual. Now the point put out, where to keep the standard of optimum fitness. From the physiological point of view physical fitness may say to be ability of the body to adopt and recover from strenuous exercise (Chaudhary, 1998) [6].

It is more than the possession of endurance, agility, speed and strength. The person who remains energetic, enthusiastic and cheerful in doing his work is said to be physically fit. Thus it is physical workout ability of an individual. The level of physical fitness varies from to person. It depends upon the nature of work, size, shape, structure, age, sex and adaptability of an individual. Different games require different levels of physical fitness depending upon the type of activity, event, game and sports. Physical fitness requires efficient motor mechanism (movement of body), efficient organic mechanism (physiological functioning) and efficient mental functioning (psychological set-up). A fit individual possesses all these. Physical fitness is the ability of a person’s body to meet the demands placed upon it by his work, by his way of life and by the necessity to meet emergency situations. Fitness is one of the basic elements which are essential for better performance. The players must needs be in top physical condition. Physical fitness is considered as the fitness of the body, but in the modern concept physical fitness means fitness of both body and mind. Kundra, S., Deepmala., & Dogra, M. (2013) [10]

Review of Related Literature
Gupta, et al. (2002) [7] conducted a study on the physical fitness, spinal mobility and flexibility in footballers. The study deals with physical fitness spinal mobility, and flexibility of 95 footballers of national and inter-university levels. The player’s performances were competed with adequate controls.
Three physical fitness tests viz, sit-ups standing broad jump and shuttle run, anterior and lateral spinal flexion and spinal extension were conducted on all the subjects. The results of this study indicated a greater physical fitness in footballer. Rudi, M., et al. (2001) \cite{19} conducted a study on Physical Fitness Qualities of Professional Rugby League Football Players: Determination of Positional Differences. The total 146 professional rugby league football players, contracted to 2 teams competing in England (\( n = 45 \)) and Australia (\( n = 101 \)), participated in this study. All players completed the following series of physical fitness performance tests: 1 repetition maximum squat and bench press, 15- and 40-m sprint, agility run, 5-minute run for distance, 60-second sit-up, 30-second plyometric push-up, and measurement of body weight and subcutaneous skinfold (4 sites). Analysis of variance with a criterion a level of \( p<0.05 \) was used to determine if any significant difference could be found when grouping players into 3 different positional categories typically identified in the sport. There were a number of significant differences with respect to test results between categories, and this was apparent for all 3 systems of categorization. On the basis of these findings, we recommend that to more efficiently structure the physical fitness training of players, the players should be grouped either according to the 2 broad positional categories of forwards or backs or according to the 4 categories of forwards, distributors, adjustable, and outside backs. Grouping players according to the 9 specific positions played on the team is not warranted.

### Methodology

#### Selection of the Subjects

The subjects were selected in following basis:

a) Only male students of GGV (Central University), Bilaspur.

b) The players are in the age group of 21 years to 28 years.

d) Only Hostlers and Non Hostlers are the part of the study.

#### Selection of Variables

- Endurance
- Agility

#### Criterion Measures

The criterion measures were used to collect the data in a deal and systematic way to record in a correct unit and style for each test item.

- Endurance was measured by 600 meter Run/Walk test and measure in minute.
- Agility was measured by Shuttle run test and measure in second.

### Statistical Techniques

For the present study, the mean value, standard deviation and independent ‘t’ test were applied to analyze the data.

### Result and Discussion

#### Table 1: Comparison of Endurance Component Hostlers & Non Hostlers Male Volleyball Players of Bilaspur

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Hostlers</th>
<th>Non-Hostlers</th>
<th>SED</th>
<th>t-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endurance</td>
<td>30</td>
<td>2.1927 .09838</td>
<td>2.0847 .06255</td>
<td>.03010</td>
<td>3.588*</td>
</tr>
</tbody>
</table>

*Significant level at 0.05 level (df 28 = 2.05)

The mean score (2.1927) of the endurance component of physical fitness of Hostlers Volleyball Players is higher than the mean score (2.0847) of Non-Hostlers Volleyball Players of GGV, Bilaspur. However, the \( t \)-ratio is 3.588 which are significant at 0.05 level. It means that Hostel Players have better endurance of physical fitness than the Non-Hosteller Players of Bilaspur.

#### Table 2: Comparison of Agility Component of Hostlers & Non-Hostlers Male Volleyball Players of Bilaspur

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Hostlers</th>
<th>Non-Hostlers</th>
<th>SED</th>
<th>t-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agility</td>
<td>30</td>
<td>7.8407 .13128</td>
<td>7.4073 .17219</td>
<td>.5591</td>
<td>7.751*</td>
</tr>
</tbody>
</table>

*Significant level at 0.05 level (df 28 = 2.05)

The mean score (7.8407) of the Agility component of physical fitness of Hostel Volleyball Players is higher than the mean score (7.4073) of Non-Hostel Volleyball Players of Bilaspur. However, the \( t \)-ratio is 7.751 which are significant at 0.05 level. It means that Hostel Players of Volleyball have better agility of physical fitness than the Non-Hostel Volleyball Players of GGV, Bilaspur.

### Conclusion

On the basis of the analysis of data the Hostel Volleyball Players were having better mean values among Endurance and Agility than Non-Hostel Volleyball Players. Hostel Volleyball Players performed better than the Non-Hosteler male players.

### References


5. Bawa D. Effect of 6 weeks training camp on physical ability level of elite gymnasts. NIS Scientific journal. 1994; 17(3).
