Comparative Analysis of selected physiological variables between Malnad and Coastal area
Football players of Karnataka

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Abstract: An attempt has been made to compare physiological variables of football players in Malnad and Coastal area, selected 25 football players in Malnad and 25 football Players in Coastal area of the age group 18 – 25 year. The selected players were subjected for analysis of Vital capacity by Wet Spiro meter, Blood Pressure by electronic Blood Pressure apparatus (Apollo model) Respiratory rate and Breath holding time was analyze manually. To determine the significant difference of any between the selected groups independent t-test was calculated separately for each variables. The result showed significant difference in Respiratory rate, vital capacity and Blood Pressure. The finding also reveals that the football players belonged to Malnad area were significantly superior to coastal area players.

Keywords: Physiological parameters, Malnad and Coastal area football Players

1. Introduction

The developing tendencies in international sports, especially in team games are identified as the increase in game tempo, tougher body game and greater variability in technique and tactics. An increased performance level can only be achieved by working and training of all major components i.e. technique, coordination, tactics, physical fitness, physiological qualities. Physiological exercise testing is important in help identify potential talent but also to provide the players, trainers and coaching staff with some profiles for the players and a measure for evaluating training programs.

Testing physiological requirements for Football has become more specific over the past decade with further advances in both sports science technology and general understanding of the physiological requirements for testing Football. However despite this progress in testing procedures and knowledge there still appears limited research regarding the analysis and critical appraisal of tests used specifically for football. Many laboratory and field tests for physiological assessment do exist, however to be thorough in reviewing physiological status it is important to assess all components of the sport, specifically measuring each energy system.

The other main component of the game not covered within this review is skill. These tasks can be assessed with testing procedures that exist but the coaching staff normally specializes in this area and thus generally will devise their own skill assessment. It is important also to note the musculoskeletal screening assessments involving information regarding the players muscle balance, core stability and general flexibility. This testing is normally done separate to the fitness based testing and is performed by physical educationists, trainers, physiotherapists, coaches and researchers. Together all of this information provides a perfect combination to ensure analysis of every physical component of the game.

Objective of the study

To study the physiological variables between Malnad and Coastal area

Selection of Variables

Physiological Variables

- Pulse Rate
- Systolic Blood Pressure
- Diastolic Blood Pressure

Tools used for data collection

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

- Pulse rate of the subjects was measured with the help of stopwatch and measurement was in number
of pulse minute. The basal pulse rate was measured for the study.

Systolic blood pressure was also be measured by using digital blood pressure apparatus and the unit was measured in MM of Hg.

Data Analysis

Table 1: Comparison of Physiological Variable of male Football players of Malnad and Coastal area

<table>
<thead>
<tr>
<th>Variable</th>
<th>Area</th>
<th>Mean</th>
<th>S.D</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse Rate</td>
<td>Malnad area male Football players</td>
<td>71.30</td>
<td>2.23</td>
<td>5.01*</td>
</tr>
<tr>
<td></td>
<td>Coastal area male Football players</td>
<td>69.45</td>
<td>2.51</td>
<td></td>
</tr>
<tr>
<td>Systolic Blood Pressure</td>
<td>Malnad area male Football players</td>
<td>120.03</td>
<td>5.78</td>
<td>5.21*</td>
</tr>
<tr>
<td></td>
<td>Coastal area male Football players</td>
<td>113.02</td>
<td>2.30</td>
<td></td>
</tr>
<tr>
<td>Diastolic Blood Pressure</td>
<td>Malnad area male Football players</td>
<td>75.30</td>
<td>4.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coastal area male Football players</td>
<td>73.20</td>
<td>1.64</td>
<td>2.06*</td>
</tr>
</tbody>
</table>

Significant at 0.05 levels  
‘t’ 0.05 = 1.66

Table-1: shown the comparison of Physiological variables of the players of the Malnad and Coastal area male Football players. The mean values of pulse rate of the Football male players of the Malnad and Coastal area state were 71.30 beats/min and 69.45 beats/min respectively. The mean values of systolic blood pressure of the players of Malnad and Coastal area state were 120.03 and 113.02 respectively. The mean values of diastolic blood pressure of the Malnad and Coastal area male Football players 75.30 and 73.20 were respectively. The ‘t’ value of the pulse rate, blood pressure (Systolic and Diastolic) of the Malnad and Coastal area male Football players were .01*,5.21* and 2.06* respectively which was tested at the level of significant at .05 level and the tabulated value of ‘t’=1.66, which showed that significant difference in mean value of Pulse rate, (Systolic and Diastolic) blood pressure was found and our hypothesis was rejected.

Graph 1:
Discussion of the study
The data revealed that physiological variables like pulse rate, blood pressure (systolic and diastolic) was observed and there was significant difference between Malnad and Coastal area male Football players.

Conclusion
The data showed that the mean scores of Malnad male Football players for physiological variables (Pulse rate, Systolic and Diastolic (blood pressure) were better than coastal male Football players.

References