Effect of Core with Game Specific Training on Selected Specific Skill Performance Variables Among College Men Football Players

Dr. B. Loganathan
Physical Director, Government College of Engineering, Erode
Anna University, Chennai, Tamil Nadu, India

ABSTRACT
The purpose of the study was to effect of core with game specific training on selected specific skill performance variables among college men football players. 45 male football players were randomly selected as the subjects for this study from the age group 18–25 years in Erode district. The participants were trained core with game specific training group I (CGG), game specific training group II (GG) and control group (CG). Each group consisted of 15 subjects. Separate linear regression models were used to evaluate the pre-post change in variables. All the subjects were informed about the nature of the study consist was obtained to cooperate till the end of the experiment and testing period. The experimental treatment namely core with game specific training and game specific training group was administrated for a duration of 8 weeks and the number of sessions per week was confined to three alternative days and each session lasted 60 minutes, in addition to the regular schedule of the football training both the training packages are presented in appendices I and II respectively. Statistically significant improvements in baseline scores in specific skill performance variables of dribbling and throw-in were comparable between the three groups of college football players. Dribbling improved by 13.11 in core with game specific training group, 13.20 in the game specific training group and 13.36 in the control group. Additional research on long duration intervention in elite players may help to establish the role of plyometric training and core training in conventional football skills for core training.

Key Words: Core Training and Football

Introduction

Core Training

The core is the centre of our body and it functions to stabilize the trunk while the arms and legs move during functional movements. The importance of the core relates to its function is sparing the spine from excessive load and transfer force from the lower body to the upper body and vice versa. Having a strong, stable core helps us to prevent injuries and allows us to perform at our best. In order to protect the back, ideally we want to create 360 degrees of stiffness around the spine as we move, run, jump, throw, lift objects and transfer force throughout our body. We do this when all of the muscles in our hips, torso and shoulders work together.

Football Game Specific Training

Football is a game of speed, so training for speed is important. Speed training can be done in the gym or on the field, but there are specific exercises that work best for football players. These include sprinting, squatting, jumping drills, and core-strengthening exercises like planks and crunches. Cardio will involve running, cycling, HIIT and the work you put in on the training ground. Resistance training involves weightlifting (compound and isolation movements) and bodyweight exercises. Beyond the training itself, you’ll need to focus on recovery, flexibility and mobility.

Methodology

To achieve the purpose of the study effect of core with game specific training on selected specific skill performance variables among college men football players, forty five (n=45) male inter-collegiate football players were selected from the Erode district, Tamil Nadu, India. This study consisted of three equal groups of fifteen subjects each. The age of subjects ranged from 18 to 25 years. The subjects had past experience of at least four years in football players and only those who represented their respective college teams were taken as subjects. The following variables were selected namely: game performance related variable dribbling and throw in Experimental Group-I underwent core with games specific training, Experimental Group-II underwent game specific training respectively. The control group was not exposed to any specific training /conditioning programme. The experimental treatment namely plyometric training and core training was administrated for a duration of 8 weeks and the number of session per week was confined to
three alternative days and each session lasted 60 minutes, in addition to the regular schedule of the football training both the training packages are presented in appendices I and II respectively.

Statistical Technique

The collected data from the three groups prior to and after the experimental treatments on selected physiological performance variables were statistically analyzed by using the statistical technique of analysis of covariance (ANCOVA). Whenever the ‘F’ ratio for adjusted post-test means was found to be significant, Scheffe’s test was followed as a post hoc test to determine which of the paired means difference was significant. In all the cases 0.05 level of confidence was fixed as a level of confidence to test the hypotheses.

Results and Analysis

The influence of independent variables on each of the criterion variables is analyzed and presented below.

The training period was limited to eight weeks. The dependent variables selected for these studies were physiological variable resting heart rate. All the subjects were tested prior to and immediately after the experimental period on the selected dependent variables.

The data obtained from the experimental groups before and after the experimental period were statistically analyzed with dependent ‘t’-test and Analysis of covariance (ANCOVA). Whenever the ‘F’ ratio for adjusted post-test means was found to be significant, the Scheffe’s Post hoc test was applied to determine the paired mean differences. The level of confidence was fixed at 0.05 level for all the cases.

Table – 1

<table>
<thead>
<tr>
<th>Test</th>
<th>Core with game specific training group</th>
<th>Game specific training group</th>
<th>Control Group</th>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test Mean</td>
<td>13.67</td>
<td>13.59</td>
<td>13.62</td>
<td>Between groups</td>
<td>0.053</td>
<td>2</td>
<td>0.027</td>
<td>0.19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Within groups</td>
<td>5.873</td>
<td>42</td>
<td>0.140</td>
<td></td>
</tr>
<tr>
<td>Post-Test Mean</td>
<td>13.14</td>
<td>13.17</td>
<td>13.55</td>
<td>Between groups</td>
<td>1.595</td>
<td>2</td>
<td>0.797</td>
<td>4.58*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Within groups</td>
<td>7.312</td>
<td>42</td>
<td>0.174</td>
<td></td>
</tr>
<tr>
<td>Adjusted Post-Test Mean</td>
<td>13.11</td>
<td>13.20</td>
<td>13.56</td>
<td>Between sets</td>
<td>1.694</td>
<td>2</td>
<td>0.847</td>
<td>6.75*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Within Sets</td>
<td>5.141</td>
<td>41</td>
<td>0.125</td>
<td></td>
</tr>
</tbody>
</table>

Figure -1

BAR DIAM GRAM THE ADJUSTED POST TEST MEAN VALUES OF CORE WITH GAME SPECIFIC TRAINING GROUP, GAME SPECIFIC TRAINING GROUP AND CONTROL GROUP ON DRIBBLING
Table – 2

ANALYSIS OF COVARIANCE OF PRE TEST AND POST MEAN AMONG CORE WITH GAME SPECIFIC, GAME SPECIFIC TRAINING GROUP AND CONTROL GROUP ON THROW-IN

<table>
<thead>
<tr>
<th>Test</th>
<th>Core with game specific training group</th>
<th>Game specific training group</th>
<th>Control Group</th>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test Mean</td>
<td>18.90</td>
<td>18.85</td>
<td>18.99</td>
<td>Between groups</td>
<td>0.142</td>
<td>2</td>
<td>0.071</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Within groups</td>
<td>39.679</td>
<td>42</td>
<td>0.945</td>
<td></td>
</tr>
<tr>
<td>Post-Test Mean</td>
<td>19.88</td>
<td>20.14</td>
<td>19.05</td>
<td>Between groups</td>
<td>9.683</td>
<td>2</td>
<td>4.842</td>
<td>4.61*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Within groups</td>
<td>44.064</td>
<td>42</td>
<td>1.049</td>
<td></td>
</tr>
<tr>
<td>Adjusted Post-Test Mean</td>
<td>19.89</td>
<td>20.19</td>
<td>18.97</td>
<td>Between sets</td>
<td>12.072</td>
<td>2</td>
<td>6.036</td>
<td>43.01*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Within Sets</td>
<td>5.753</td>
<td>41</td>
<td>0.140</td>
<td></td>
</tr>
</tbody>
</table>

Figure -2

BAR DIAGRAM THE ADJUSTED POST TEST MEAN VALUES OF CORE WITH GAME SPECIFIC TRAINING GROUP, GAME SPECIFIC TRAINING GROUP AND CONTROL GROUP ON THROW-IN
Conclusion

The findings of the study showed that there was a statistically significant improvement in the game specific performance related skill variables dribbling and throw - in as compared to control group.

Based on the results of the study, it was concluded that the core with game specific training group program has resulted in significant increase in selected game specific performance related skill variables as dribbling and Throw –in.

Recommendations

A Similar studies may be conducted for the fairer sex also keeping age and other factors in to consideration for experimental variables.

Studies may be also being conducted on similar lines with different nutritional plans.

Reference


27. Sankar A et al., Effect of plyometric training on selected physical fitness and skill variables of intercollegiate football players, International multi-disciplinary journal, 2/1 pages 17-19, http://www.physiologyjournals.com/article/view/19/2-2-12