Impact of intensity exercise of anaerobic power and skill performance of football players

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Abstract
The main purpose of the present study is to find out the impact of intensity exercise of anaerobic power and skill performance of football players. For this study 30 boys were selected and divided into two equal groups, consisting of 15 subjects in each group as experimental and control groups. The experimental group underwent eight weeks of varied intensity training, six days (Monday to Saturday) in the week, two hour in a morning session, whereas the control group did not underwent any training. The pre test and post test were conducted for both the experimental and control group on the selected physical fitness variables of power (vertical jump and standing broad jump) and skills performance (30 meters dribbling with the ball test and kicking accuracy). The results revealed that study the selected varied intensity training exercises contributed positively towards the improvement of anaerobic power and skill performance of the football players.

Keywords: anaerobic power, varied intensity, football, explosive power

Introduction
Football is a family of team sports that involve, to varying degrees, kicking a ball to score a goal. Unqualified, the word football is understood to refer to whichever form of football is the most popular in the regional context in which the word appears. Sports commonly called 'football' in certain places include: association football (known as soccer in some countries); gridiron football (specifically American football or Canadian football); Australian rules football; rugby football (either rugby league or rugby union); and Gaelic football. These different variations of football are known as football codes.

Various forms of football can be identified in history, often as popular peasant games. Contemporary codes of football can be traced back to the codification of these games at English public schools during the nineteenth century. The expanse of the British Empire allowed these rules of football to spread to areas of British influence outside of the directly controlled Empire, though by the end of the nineteenth century, distinct regional codes were already developing: Gaelic football, for example, deliberately incorporated the rules of local traditional football games in order to maintain their heritage. In 1888, The Football League was founded in England, becoming the first of many professional football competitions. During the twentieth century, several of the various kinds of football grew to become some of the most popular team sports in the world.

During the early 1860s, there were increasing attempts in England to unify and reconcile the various public school games. In 1862, J. C. Thring, who had been one of the driving forces behind the original Cambridge Rules, was a master at Uppingham School and he issued his own rules of what he called "The Simplest Game" (these are also known as the Uppingham Rules). In early October 1863 another new revised version of the Cambridge Rules was drawn up by a seven member committee representing former pupils from Harrow, Shrewsbury, Eton, Rugby, Marlborough and Westminster.

At the Freemasons' Tavern, Great Queen Street, London on the evening of October 26, 1863, representatives of several football clubs in the London Metropolitan area met for the inaugural meeting of The Football Association (FA). The aim of the Association was to establish a single unifying code and regulate the playing of the game among its members.

High Intensity Training (HIT) is a form of strength training popularized in the 1970s by Arthur
Jones, the founder of Nautilus. The training focuses on performing quality weight training repetitions to the point of momentary muscular failure. The training takes into account the number of repetitions, the amount of weight, and the amount of time the muscle is exposed to tension in order to maximize the amount of muscle fiber recruitment.

A great drill is simply weaving in and out of a set of cones on the dribble. Put about 8 to 10 cones in a line about three yards apart and dribble in and out of the row of cones without touching or knocking over the cones. Also, try not to touch the ball too far away from the line of cones. Keep the ball close to you and don't dribble out away from the row of cones. When you have this down you can then vary the way that you dribble through the cones, just with the right foot and then just with the left foot, and then alternating feet, where you touch the ball to the left and then to the right as you weave through the cones, just with the inside of the feet, and so on, you can make up restrictions to put on yourself to try to improve a specific part of your dribbling technique.

Table 1: Selection of Tests

<table>
<thead>
<tr>
<th>Variables</th>
<th>Test Items</th>
<th>Unit of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive power in terms of horizontal distance</td>
<td>Standing broad jump</td>
<td>Centimetre</td>
</tr>
<tr>
<td>Explosive power in terms of vertical distance</td>
<td>Sargent jump</td>
<td>Centimetre</td>
</tr>
<tr>
<td>Dribbling</td>
<td>30 meters run</td>
<td>Seconds</td>
</tr>
<tr>
<td>Kicking accuracy</td>
<td>Goal kicking Test</td>
<td>Seconds</td>
</tr>
</tbody>
</table>

The collected data were analyzed by using independent sample t-test to compare the impact of varied intensity exercise on anaerobic power and skill performance of the football players. The main purpose of this study was to examine the short term effects. The 30 selected boys were divided into two equal groups, consisting of 15 subjects in each group as experimental and control groups. The experimental group underwent eight weeks of varied intensity training, six days (Monday to Saturday) in the week, two hour in a morning session. Whereas the control group did not underwent any training. The pre test and post test were conducted for both the experimental and control group on the anaerobic power (vertical jump and standing broad jump) and skills performance (30 meters dribbling with the ball test and kicking accuracy test).

Table 2: Comparison of mean gain in selected variable between experimental and control groups

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group Compared</th>
<th>Mean Gain</th>
<th>Mean Diff.</th>
<th>Standard Error Mean Gain</th>
<th>'t' Value</th>
<th>Sig*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive power (Standing Broad Jump)</td>
<td>Experimental Vs Control</td>
<td>0.05 0.02</td>
<td>0.03</td>
<td>0.02</td>
<td>2.83</td>
<td>0.01</td>
</tr>
<tr>
<td>Explosive power (Vertical Jump)</td>
<td>Experimental Vs Control</td>
<td>0.03 0.01</td>
<td>0.02</td>
<td>0.01</td>
<td>2.49</td>
<td>0.01</td>
</tr>
<tr>
<td>Football skill (30 mt. Dribble)</td>
<td>Experimental Vs Control</td>
<td>1.13 -0.31</td>
<td>1.44</td>
<td>0.50</td>
<td>2.68</td>
<td>0.02</td>
</tr>
<tr>
<td>Football skill (Kicking Accuracy)</td>
<td>Experimental Vs Control</td>
<td>0.98 -0.29</td>
<td>1.27</td>
<td>0.48</td>
<td>2.13</td>
<td>0.01</td>
</tr>
</tbody>
</table>

* (p<0.05)
Comparison of mean gain in the explosive power of standing broad jump between the experimental group and control group: It is seen from the Table 2 that, in explosive power of standing broad jump test, the mean gain of the experimental and controlled groups is 0.05 and 0.02 respectively, whereas the difference in the mean gain of both group is 0.05 which is in favour of experimental group whereas the ‘t’ value of is 2.83 which is significant at 0.05 level. This reveals that varied intensity training improved the explosive power of experimental group significantly.

Comparison of mean gain in the explosive power of vertical jump between experimental and control group: It is seen from the Table 2 that, in case of explosive power of vertical jump test, the mean gain of the Experimental Group and Control Group is 0.03 and 0.01 respectively, whereas the difference in the mean gain of both group is 0.02 which is in favour of experimental group whereas the ‘t’ value is 2.49 which is significant at 0.05 level. This reveals that varied intensity training has improved the Explosive power of experimental group significantly.

Comparison of mean gain in football skill (30 meters dribble) between the experimental and control group: It is seen from the Table 2 that, in case of skill performance, 30 meters run with the ball (dribble) test, the mean gain of the experimental group and control group is 1.13 and -0.31 respectively, whereas the difference in the mean gain of both group is 1.50 which is in favour of experimental group where as the ‘t’ value is 2.68 which is significant at 0.05 level. This reveals that varied intensity training has improved the football skill performance of experimental group significantly.

Comparison of mean gain in football skill of kicking accuracy between the experimental and control group: It is seen from the Table 2 that, in case of skill performance of kicking accuracy test, the mean gain of the experimental and control group is 0.98 and -0.29 respectively, whereas the difference in the mean gain of both group is 1.35 which is favourable of experimental group where as the ‘t’ value is 2.13 which is significant at 0.05 level. This reveals that varied intensity training has improved the football skill performance (kicking accuracy) of experimental group significantly.

Conclusion
It is concluded that the basis of the following findings of the pre test and post test were conducted for both the experimental and control group on the selected physical fitness variables of power (vertical jump and standing broad jump) and skills performance (30 meters dribbling with the ball test and kicking accuracy test):
• The selected varied intensity training contributed positively towards the improvement of anaerobic power of standing broad jump and vertical jump of football players.
• The selected varied intensity training contributed positively towards the improvement of skill performance of kicking accuracy and 30 meters dribbling of football players.

The results revealed that study the selected varied intensity training exercises contributed positively towards the improvement of anaerobic power and skill performance of the football players.

References