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Effect of Parcourse Training and Small Sided Games Practice on Explosive Power among School Students

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Abstract

The purpose of the present study was to assess the effect of parcourse training and small sided games practice on explosive power among school students. For this purpose, total of 45 school boys from Kottayam, Kerala were considered. The selected subject were divided into three equal groups 15 subjects each, and their age ranged from 15-17 years. Group I underwent parcourse training group and group II underwent small sided game practice and group III acted as control group, which did not participate any training. The training period for this study was 5 days in a week for 12 weeks. Prior and after the training period the subjects were tested on explosive power by using vertical jump. The unit and the measurement were recorded in centimeters. The Analysis of Covariance (ANCOVA) was applied as statistical tool. It was concluded from the results of the study that the training groups have improved explosive power.

Keywords: PTG (Parcourse Training Group), SGP (Small Sided Game Practice) CG (Control Group), Explosive Power.

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Introduction

Physical training is one of the most important ingredients in training to achieve high performance. A new concept at current training developed in Europe has been adopted recently in the United States (US) and Canada called Parcourse Training. It consists of a series of statistics set up over a one to two mile path to provide a recreational exercise circuit for individuals. The exercises are easily adaptable for all ages and can be modified to accommodate individual fitness level and physical limitations. Small sided games is simply a game of soccer that takes place on a pitch that is smaller regulations on a field but on a smaller scale (Gabbalt, T J. 2008). Small sided games are important because they allow opportunity for technical development under competitive pressure, such that players are able to turn technique into skill. Explosion power is an individual ability to exert a maximal amount of force into the shortest possible time interval (Potteizer, 1999). High levels of general fitness with motor abilities are essential qualities to require to be developed by small game practices.

Methods

The purpose of the present study was to find out the effect of parcourse training and small sided game practice on explosive power among higher secondary

school students. For this purpose forty five male students from higher secondary school, Kottayam, Kerala were selected. The age groups of 15 to 17 years were selected as subjects. They were divided into three equal groups, each group consists of fifteen subjects, in which Group-I underwent parcourse training, group II underwent small sided game practices and group III acted as control group. The training period for this study was five days in a week for twelve weeks. Prior and after the training period the subjects were tested for explosive power were tested by using vertical jump, the unit of the measurement was recorded in centimeters.

Analysis of data

Analysis of covariance (ANCOVA) was used to determine the differences if any, among the adjusted. Post test means on selected criteria variables separately. Whenever the 'F' ratio for adjusted post test means was found to be significant, the Scheffus' test was applied as post hoc test. The level of significance was fixed as 0.05 level as confidence to test the 'F' ratio obtained by analysis of covariance.

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Table 1

Analysis of covariance of experimental group and control group on explosive power

Test	G I PTG	G II SSGG	Gross control	SV	SQ	D f	MS	Obtained 'F' ratio
Pre-test								
Mean	49.73	49.87	49.53	between	0.8444	2	0.4222	0.61
SD	2.21	3.10	2.22	within	290.40000	42	6.9143	
Post test								
Mean	53.20	52.00	49.27	between	121.9111	2	60.9556	10.608*
SD	1.11	3.08	2.32	within	241.3333	42	5.7460	
Adjusted post test								
Mean	53.18	51.88	49.40	between	110.7368	2	55.3684	28.491*
				within	79.6784	42	1.9434	

*Significant at 0.05 level (the table value required for significant a 0.05 level of confidences for 2 and 42 are 3.22).

Table 2

Scheffie's post hoc values of paired men difference on Explosive Power

G-I PTG	G-II SSGG	G-III CG	MD	CI Value
53.18	51.88	--	1.30*	1.29
53.18	--	49.40	3.78*	1.29
--	51.88	49.40	2.48*	1.29

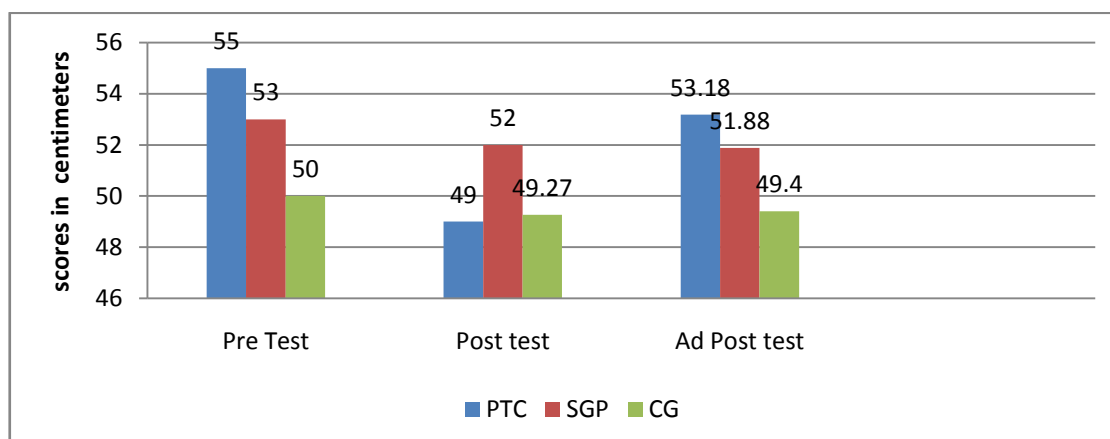
Results

Table I showed that there was a significant difference among parcourse training group, small sided game practice group and control group on explosive power. The mean of adjusted post test explosive power score Group I (PTG) Group II (SSGG) and Group III (CG) are 53.18, 51.88 and 49.40 respectively. The obtained adjusted post test 'F' value of 28.491 was greater than the recorded table 'F' value of 3.22. Hence the adjusted post test mean value of explosive power shows significant at 0.05 level of confidences. The result obtained proved then the intervention namely PTG and SSGG on explosion power produced significantly different improvements among the experiment groups.

The comparison between group I (PTG) and group II (SSGG) obtained mean difference value 1.30 was greater than the Confidential Interval value of 1.29. Hence the comparison was significant. The comparison between group I (PTG) and group III (CG) obtained mean difference value 3.78 was greater than the Confidential Interval value of 1.29. Hence the comparison was significant. The comparison between group II (SSGG) and group III (CG) obtained mean difference value of 2.48 was greater than the Confidential Interval value of 1.29. Hence this comparison was significant. The selected training group has significantly improved the explosive power than the baseline to post training.

Figure 1

The pre-post and adjusted post test of mean different groups on explosive power



Conclusion

1. It was concluded the Parcourse Training Group produced higher improvement than the SSGG group.
2. The SSGG groups shows less improvement on explosive power.
3. The control group did not produce any significant improvement on explosive power.

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