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Effect of Progressive Fluctuated And Regressive Intensity of Comlex Training on Explosive Power Among Men

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ABSTRACT

The present study was designed to examine the effect of Progressive complex training (PCTG) Fluctuated complex training (FCTG) and Regressive complex training (RCTG) on explosive power among men. Men (N=36) selected at random from Sri Krishna and Gopala Krishna College of Physical Education (dist) Nelgonda Telangana, their age ranged from 18-23 years. The subject chosen for study were divided into three experimental group and designated as PCTG (n=12), FCTG (n=12) and RCTG (n=12). The training was given 45 to 60 minutes for 12 weeks. The data were collected before and after the training period. The obtain data were analyzed by Analysis of Covariance (ANCOVA). The level of significant was fixed at 0.05 level. Where ever the 'F' ratios was found significant scheffe's post test was used to find out the significant differences among the paired mean. This intervention resulted significant improvement on explosive power due to effect of PCTG, FCTG and RCTG. PCTG better than FCTG and RCTG.

KEYWORDS : complex, Progressive, Fluctuated, Regressive and explosive power

Introduction

Almost all sports performance require explosive power such as movement in long jump, high jump, triple jump, football, volley ball, basketball so on . Explosive power means to generate quick burst of maximal effort or near maximum power output in shot amount of time. Complex training involves combination of weight training or resistance training and plyometric or jumping exercises. In complex training the weight training exercises are perform before the related or matched plyometric exercises. Plyometric exercises are related to jumping exercise. Plyometric exercises are applied mainly to improve athlete's capacity to use maximal force rapidly. Plyometric exercise involves rapidly stretch a muscle (eccentric phase) than rapidly shorten it (concentric phase). Weight training or resistance training exercises are designed to increase muscle strength, muscle endurance and muscle power. Weight or resistance training means applying additional weight or resistance while performing any muscular movement. Weight training or resistance training exercises can be done in several ways such as free weight, resistance machine and with body weight (dands and bhaitaks).

Objective of the study

To examine the impact of Progressive complex training Fluctuated complex training and Regressive complex training on explosive power.

Statement of the problem

The purpose of the study was to investigate the effect of Progressive complex training Fluctuated complex training and Regressive complex training on explosive power among men.

Hypothesis

1. It was hypothesis that there will be a significant improvement in explosive power after the twelve weeks of Progressive complex training Fluctuated complex training and Regressive complex training.

2. It was hypothesis that Progressive complex training will be significantly better than the Fluctuated complex training and Regressive complex training**.**

Methodology

The purpose of this study was to find out the impact of Progressive complex training (PCTG) Fluctuated complex training (FCTG) and Regressive complex training (RCTG) on explosive power among men. Men (N=36) selected at random from Sri Krishna and Gopala Krishna College of Physical Education (dist) Nelgonda Telangana, their age ranged from 18-23 years. The subject chosen for study were divided into three experimental group and designated as PCTG (n=12), FCTG (n=12) and RCTG (n=12). The training was given 45 to 60 minutes for 12 weeks. The data were collected before (pre-test) and after (post-test) the training period. To measure the explosive power standing broad jump was used because of their simplicity and availability of necessary facilities, instrument and equipment's.

Statistical analysis

The analysis of data on explosive power had examined by Analysis of Co variance (ANCOVA) to determine the differences if any among the group at pre and post-test. When the differences were found to be significant by ANCOVA, the scheffes post hoc test was applied to assess the significant differences between adjusted mean.

Table-1
Analysis of Co variance for pre-test, post-test and adjusted post-test on explosive power of experimental groups

	PCTG	FCTG	RCTG	Sources of variance	Sum of square	df	Mean Square	'F' ratio
Pre -test Mean SD	1.90 0.24	1.91 0.23	1.90 0.24	B W	0.00 1.92	2 33	0.000 0.058	0.003
Post-test Mean SD	2.31 0.07	2.23 0.11	1.97 0.08	B W	0.76 0.25	2 33	0.377 0.008	49.42*
Adjusted post-test Mean	2.31	2.24	1.97	B W	0.75 0.15	2 32	0.377 0.005	78.38*

* Significant at 0.05 level.

F value require d to be significant at 2, 33 d/f and 2, 32=3.32

The above table -1 shows that there is a significant difference in explosive power among the three groups such as **Progressive complex training (PCTG) Fluctuated complex training (FCTG) and Regressive complex training (RCTG)**. Since the calculated 'F' value required being significant at 0.05 levels for 2, 33 and 2, 32 degree of freedom is 3.32, but the calculated values of explosive power of post and adjusted post-test 'F' values are 49.42 and 78.38 respectively. Which are higher than the tabulated value. Hence the obtain 'F' ratio is found significant, Scheffe"s test is used as a post hoc test.

Table-2
The Scheffe's test for the difference between paired means of groups on explosive power

PCTG	FCTG	RCTG	MD	CI
2.31	2.24		0.07	**0.63**
2.31		1.97	0.34	
	2.24	1.97	0.27	

*** Significant at 0.05 level.**

The above table-2 reveals that there is no significant difference among pairs adjusted posttest means between **Progressive complex training (PCTG) Fluctuated complex training (FCTG) and Regressive complex training (RCTG)** in relation to explosive power.The pretest and posttest mean values of the three groups have been graphically presented in figure-1

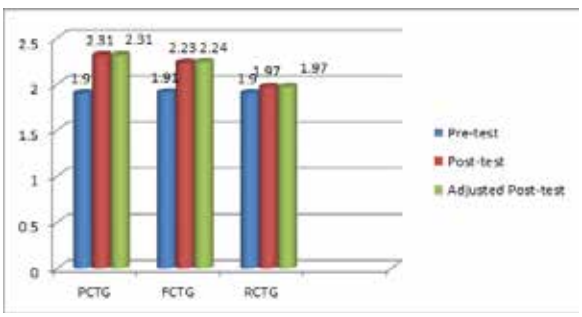

Figure1: Bar diagram showing the pre-test, post-test and adjusted post-test mean of **Progressive complex training (PCTG) Fluctuated complex training (FCTG) and Regressive complex training (RCTG)** on explosive power.

Discussion and findings

When explosive power examined, it found that the **PCTG, FCTG and** RCTG significantly improved the explosive power after the 12 weeks of training schedule. This finding of the study align with following studies *Adams (1984), Adams (1993), Subramaniam et al. (2012), Parthiban (2013) and Das et al., (2014).*

Conclusion

Results indicate that after 12 weeks of Progressive complex training Fluctuated complex training and Regressive complex training significantly improve explosive power. This suggests that Progressive complex training better than the Fluctuated complex training and Regressive complex training.