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Effect of Different Packages of Training on Explosive Power of Male Volleyball Players

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Abstract – The present study was undertaken to "Effect of different packages of training on explosive power of male volleyball players" for the purpose of the study sixty male volleyball players were selected as subjects in and around Guntur District of Andhra Pradesh and their age ranged from 18 to 21 years. The subjects chosen for the study were divided into four equal groups and designated as experimental group 'A' experimental group 'B', experimental group 'C' and control group 'D' Plyometirc training were given to group 'A' circuit training were given to group 'B'. Combined Training were given to group 'C' and the control group 'D' were restricted to participate in any activities. The trainings were given for a period of twelve weeks. The obtained data's were analyzed by Analysis of Covariance and which was further subject of Scheffe's Post hoc test, wherever the F-ratio was found significant. The result of the study revealed that the training programme were significantly increased on explosive Power of male volleyball players.

Keywords: Plyometric Training- Circuit Training- Combined Training – Explosive Power - Volleyball Players.

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INTRODUCTION

"Sports offer many opportunities for people to make the best use of their abilities, to become part of a cooperative team effort, to experience the joy and sometimes the misery of winning and losing. To achieve top level performance in the international arena one must have a fitness regimen and systematic execution. To win medals, in the Olympics there should be spotting of talent, systematic and scientific method of training, competitive exposure etc. It is not only because of training, but also because of psychological and physiological aspects that goals are achieved. Experts in the field of sports have put their mind into it and made tremendous efforts to find out ways and means to achieve top level performance".

OBJECTIVE OF THE STUDY

1. To measure the influence of plyometric training treatment on the explosive power of volleyball players.
2. To evaluate the impact of circuit training treatment on the explosive power of volleyball players.
3. To understand the changes between plyometric training, circuit training and combined training on explosive power of volleyball player.

STATEMENT OF THE PROBLEM

The purpose of the study is to investigate the effect of different packages of training on explosive power of male volleyball players.

HYPOTHESES

- ► It was hypothesized that may be significant improvement on explosive power of male volleyball players due to the plyometric training, circuit training and combined training when compared with control group.
- ► It was hypothesized that may be the combined training group is better than the other two training group and control groups on explosive power of male volleyball players.

METHODOLOGY

The purpose of the study was to find out the "Effect of different packages of training on explosive power of male volleyball players". For the purpose of the study sixty male volleyball players were selected as subjects in and around Guntur District of Andhra Pradesh and their age ranged from 18 to 21 years. The subjects chosen for the study were divided into four equal groups and designated as experimental group 'A' experimental group 'B' experimental group 'C' and control group 'D' Plyometirc training were given to group 'A' circuit training were given to group 'B'. Combined Training were given to group 'C' and the control group 'D' were restricted to participate in any activities. The trainings were given for a period of twelve weeks. The obtained data further analyzed by using analysis of covariance and which was further subjects of scheff's post hoc test, wherever the F- ratio was found significant.

RESULTS AND DISCUSSION

It deals with at the analysis of data collected from samples under study four groups namely Plyometric training, Circuit training. Combined training and the control groups were analyzed for the differences in their measures of explosive power among volleyball players in relation to pretest, posttest and adjusted posttest mean values by applying the analysis of covariance. To test the obtained results on explosive power, the level of significance 0.05 was chosen and considered as sufficient for the study.

TABLE – I

ANALYSIS OF COVARIANCE ON EXPLOSIVE POWER BETWEEN GROUPS

Test	Group	PTG	CTG	PTG CTG	CG	SOV	SOS	df	MSOS	'F' Ratio
Pre	Mean	2.04	2.04	1.87	1.98	B	0.30	3	0.10	1.12
	S.D	0.18	0.16	0.50	0.22	W	5.00	56	0.09	
Post	Mean	2.32	2.20	2.42	1.97	B	1.76	5	0.59	**30.01***
	S.D	0.09	0.14	0.03	0.21	W	1.09	56	0.20	
Adjusted Post Test Mean	Mean	2.31	2.19	2.45	1.97	B	1.864	3	0.621	**40.17***
						W	0.851	55	0.015	

*Significant at 0.05 level of confidence
F-ratio at 0.05 level of confidence for 3 and 55 (df) =2.77

The above table I shows that the obtained 'F' ratio in pre-test (F=1.12, P>0.005) among four groups found to be insignificant in explosive power. Further it can be seen that significant differences exist in post-test (F=30.01, P<0.005) and adjusted post-test (F=40.17, P<0.05). Based on the result of the study reveals that three experimental groups significantly improved in explosive power due to the twelve weeks of plyometric training, circuit training and combined training group when compare with control group.

TABLE – II

Scheffe's Post Hoc Test for the Differences among Paired Means of Groups on Explosive Power

MEANS OF				Paired Mean Difference	Sig P Value	CI Value
PTG	CTG	PTCCTG	CG			
2.31	2.19			0.12*	.007	0.11
2.31		2.45		0.14*	**.000**	0.11
2.31			1.97	0.34*	**.000**	0.11
	2.19	2.45		0.26*	**.005**	0.11
	2.19		1.97	0.22*	**.000**	0.11
		2.45	1.97	0.48*	**.000**	0.11

Significant at 0.05 level of confidence

The above table II shows that the significant differences exist between the PTG and CTG, PTG and PTCCTG, PTG and CG, CTG and PTGCTG, CTG and CG, PTCCTG and CG, at 0.05 level of confidence.

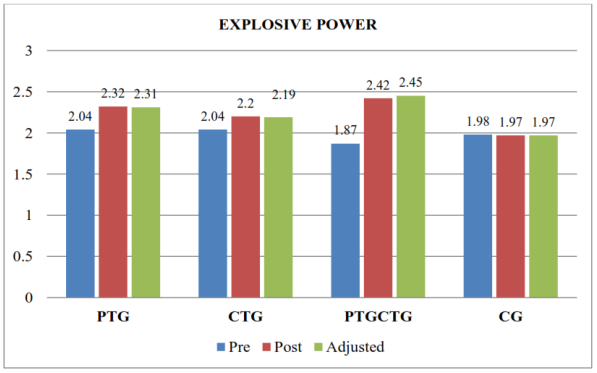

Figure 1: Bar Diagram Shows the Mean Values on Explosive Power

DISCUSSION ON HYPOTHESES

- In the first hypothesized mention that may be significant improvement on explosive power of male volleyball players due to the Plyometric training, circuit training and combined training when compared with control group. Hence research first hypothesis accepted.

- In the second hypothesized mentioned that may be the combined training group is better than the other two training group and control groups on explosive power of male volleyball players. Hence research second hypothesis accepted.

CONCLUSIONS

Based on the results of the study the following conclusion where drawn:

1. The plyometric training, circuit training and combined training group had shown improvement on explosive power of male

volleyball players when compared with the control group.

2. The combined training group had shown better than the other two training group and control group on explosive power of male volleyball players.

3. It is suggested that volleyball coach may apply combined plyometric and circuit training to develop explosive power of volleyball players.

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