Journal of Advances and Scholarly Researches in Allied Education
Vol. 16, Issue No. 6, May-2019, ISSN 2230-7540

Effect of Different Packages of Training on Serving Ability of Male Volleyball Players

A. Satyanarayana[1]* Dr. P. Jhonson[2]

[1] Research Scholar, University College of Physical Education & Sports Sciences, Acharya Nagarjuna University, Guntur

[2] Research Supervisor, Principal, University College of Physical Education & Sports Sciences, Acharya Nagarjuna University, Guntur

Abstract – The present study was undertaken to "Effect of different packages of training on serving ability 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 improved Serving, ability of male volleyball players.

Keywords: Plyometric training- circuit training- Combined Training – serving ability- volleyball players.

----------X----------

INTRODUCTION

Plyometrics is a type of exercise training designed to produce fast, powerful movements, and improve the functions of the nervous system, generally for the purpose of improving performance in sports. Plyometric movements, in which a muscle is loaded and then contracted in rapid sequence, use the strength, elasticity and innervations of muscle and surrounding tissues to jump higher, run faster, throw farther, or hit harder, depending on the desired training goal. Plyometrics is used to increase the speed or force of muscular contractions, providing explosiveness for a variety of sport-specific activities.

Circuit training is a common method of interval training. Circuit training consists of a consecutive series of times exercises performed one after the other with varying amounts of res between each exercise. Circuit training is called station training when more than one set of exercises for a particular muscle group of groups are performed at a station of another fixed location. Station training then refers to the organization of training.

OBJECTIVE OF THE STUDY

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

STATEMENT OF THE PROBLEM

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

HYPOTHESES

► It was hypothesized that may be significant improvement on serving ability 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 serving ability of male volleyball players.

METHODOLOGY

The purpose of the study was to find out the "Effect of different packages of training on serving ability 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 serving ability among volleyball players in relation to pretest, post-test and adjusted post-test mean values by applying the analysis of covariance. To test the obtained results on serving ability, the level of significance 0.05 was chosen and considered as sufficient for the study.

TABLE – I

ANALYSIS OF COVARIANCE ON SERVING BETWEEN GROUPS ON SERVING ABILITY OF VOLLEYBALL PLAYERS

Test	Group	PTG	CTG	PTGCTG	CG	SOV	SOS	df	MSOS	'F' Ratio
Pre	Mean	27.53	27.4	27.47	27.4	B	0.183	3	0.61	0.003
	S.D	4.81	4.84	4.82	3.62	W	1160.6	56	20.73	
Post	Mean	32.53	34.80	35.60	29.3	B	688.2	5	229.42	**8.285***
	S.D	5.84	5.82	5.34	3.77	W	1550.6	56	27.69	
Adjusted Post Test Mean	Mean	32.46	34.84	35.59	26.98	B	682.79	3	227.6	**17.904***
						W	699.1	55	12.71	

*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=0.003, P>0.005) among four groups found to be insignificant in serving. Further it can be seen that significant differences exist in post-test (F=8.285, P<0.005) and adjusted post-test (F=17.904, P<0.05). Based on the result of the study reveals that three experimental groups significantly improved in serving 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 Serving

MEANS OF				Paired Mean Difference	Sig P Value	CI Value
PTG	CTG	PTGCTG	CG			
32.46	34.84			2.38	.073	3.74
32.46		35.59		3.13	.020	3.74
32.46			26.98	5.48*	**.000**	3.74
	34.84	35.59		0.75	.571	3.74
	34.84		26.98	7.86*	**.000**	3.74
		35.59	26.98	8.61*	**.000**	3.74

Significant at 0.05 level of confidence

The above table II shows that the significant differences exist between the PTG & CG, CTG & CG and PTGCTG & CG, whereas in case of PTG & CTG, PTG & PTGCTG, CTG & PTGCTG found insignificant paired mean differences at 0.05 level of confidence.

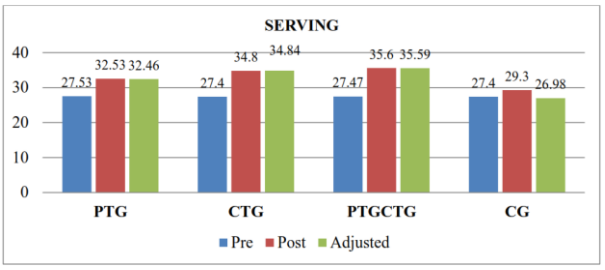

Figure 1: Bar Diagram Shows the Mean Values on Serving

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 rejected.

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 serving ability of male volleyball players when compared with the control group.

2. The study found no significant differences between three experimental groups volleyball players namely plyometric training group, circuit training group and combined training group volleyball players

3. It is suggested that volleyball coach may apply isolated and combined training of plyometric and circuit training to develop serving ability of volleyball players.

REFERENCES:

Mohanasundaram S. and Vasanthi G. (2013). Effective Study Of S.A.Q. Training And Tempo Training On Agility And Resting Pulse Rate Among Junior Cricket Players Indian Streams Research Journal (3)7, pp. 1-3

Baljinder Singh Bal, Parminder Jeet Kaur and Davinder Singh (2011). Effects of a short term plyometric training program of agility in young basketball players. Brazilian Journal of Biomotricity, (5) 4, pp. 271-278,

Bal, B.S., Kaur, P.J., Singh, D. (2011). Effects of a short term plyometric training program of agility in young basketball players. Brazilian Journal of Biomotricity, 5(4) pp. 271-278,

Devaraju K. (2014). The purpose of the study was to examine the effect of S.A.Q training on vital capacity among Hockey players. International Journal of Management, (5)1, pp. 102-105

Poorna Sarachandra (2014). The effects of SAQ training and circuit training on speed and agility among young high school football players, International journal of engineering research and sports science.(1)3, pp. 9-10.

Madhu Sudhana Babu and Siva sankarreddy M. (2014). comparative analysis of speed and agility among university players of different disciplines. International journal of engineering research and sports science.(1)3, pp. 11.

Raj Kumar (2013). The effect of 6 week plyometric training program on agility of collegiate soccer players, International Journal of Behavioral Social and Movement Sciences.(2)1, pp. 170-176

Michael G. Miller, Jeremy J. Herniman, Mark D. Ricard, Christopher C. Cheatham and Timothy J. Michael (2006). The Effects of A 6-Weekplyometric Training Program on Agility. Journal of Sports Science and Medicine, **5, pp.** 459-465

Vladan Milic, Dragan Nejic and Radomir Kostic (2008). Effect of plyometric training on the explosive strength of leg muscles of volleyball players on single foot and two-foot takeoff jumps physical education and sport.(6)2, pp. 169-179.

Corresponding Author

A. Satyanarayana*

Research Scholar, University College of Physical Education & Sports Sciences, Acharya Nagarjuna University, Guntur