THINK INDIA JOURNAL

ISSN:0971-1260
Vol-22- Issue-14-December-2019

Effect Plyometric Training On Selected Fitness Variables Among College Men Football Players

Dr. P. Kumaravelu

Assistant Professor, Department of Physical Education, Tamilnadu Physical Education and Sports University, Chennai, Tamilnadu, India.

ABSTRACT

The purpose of the study was to find out the effects of plyometric training on selected physical fitness variables such as strength endurance and ability among college men football players. To achieve this, thirty male football players are studying in the Tamilnadu university. The selected subjects were divided into two equal groups of fifteen subjects each namely plyometric training group and control group. The selected criterion variables such as strength endurance and agility were assessed tests and procedures, before (pre test) and after (post test) training regimen for both experimental and control groups by using setups and shuttle run respectively. The selected subject add undergone the plyometric training for 8 weeks, with 3days perweek in alternate days. After 10 to 15 minutes of warmup this subject underwent they respective plyometric training programmed and the subject formed 6 to 12 repetitions of plyometric exercise namely hopping, bounding, hurdles exercise depth jumps , medicine ball throws, with a recovery distance of 20 to 40 meters or 1 to 3minutes between repetitions the control did not particitipate in any specialized training during the period of study. Based on the result of study it was concluding that the plyometric training programmed as resulted in signification increases in selected fitness variable such as strength endurance and agility.

KEYWORDS: Plyometric Training, College Men, Fotball.

INTRODUCTION

Physical fitness is one of the basic requirement of life broadly speaking it means the ability to carryout our daily tasks without under fatigue. Physical fitness is one of the components of the total fitness of the individual, which also includes mutual, social and emotional fitness. In general terms, it is an unpatrolled activity for ones personal fitness. For athletes to perform at their best, speed, strength and endurance need to be developed to optimal levels. The results researches, new techniques are being adopted for training high-level sportsman.

Strength endurance is required in all sports movement, whether fast or slow, movement have to be done under lesser or higher condition of fatigue. Agility is a combination of several athletic trains such as strength, reaction time, speed of movement, power and co-ordination, Its display becomes essential in such movement as dodging, zigzag running, stopping and starting and changing body positions quickly.

Plyometric is a method of developing explosive power, an important component of the athletic performance as plyometric movements are performed in a wide spectrum of sports. In football, it can be played more skillfully when players have the power that combines with strength and speed to develop explosive power for participating in various sports activities. To give top quality performances for the full playing time over a whole series of football matches in addition to all that we have outlined above, outstanding physical condition and a high standing and high standard of physical capability are necessary. The

 Copyright ⓒ 2019Authors

ISSN:0971-1260
Vol-22- Issue-14-December-2019

plyometric exercise improve significantly in developing physical fitness variable and skill performance of football players.

METHODOLOGY

The purpose of the study was to find out the effects of plyometric training on selected physical fitness variables such as strength endurance and ability among college men football players. To achieve this, thirty male football players are studying in the Tamilnadu university. The selected subjects were divided into two equal groups of fifteen subjects each namely plyometric training group and control group. The selected criterion variables such as strength endurance and agility were assessed tests and procedures, before (pre test) and after (post test) training regimen for both experimental and control groups by using setups and shuttle run respictvly

The selected subject add undergone the plyometric training for 8 weeks, with 3days perweek in alternate days. After 10 to 15 minutes of warmup this subject underwent they respective plyometric training programmed and the subject formed 6 to 12 repetitions of plyometric exercise namely hopping , bounding, hurdles exercise depth jumps , medicine ball throws , with a recovery distance of 20 to 40 meters or 1 to 3minutes between repetitions the control did not particitipate in any specialized training during the period of study.

EXPERIMENTALA DESIGN AND STATISTICAL PROCEDURE

The experimental design use for the present investigation was random group design involving 30 subjects for training effect. Analysis of covariance (ANCOVA)was used as a statistical technique to the significant difference, if any, existing between present and post test data on selected dependence variables separately in presented table-I.

RESULTS

TABLE I
ANCOVA FOR PLYOMETIC TRAINING GROUP

Variables	Test	Plyometric training group	Control group	Sources of variance	SS	df	Mean square	"f" ratio
Strength endurance	Pretest mean S.D	47.00 1.93	47.27 2.40	Between within	0.533 132.92	1 28	0.533 4.75	0.112
	Post test Mean S.D	52.92 2.16	47.52 2.10	Between within	218.70 126.67	1 28	218.7 4.53	48.344
	Adjusted posttest mean	52.94	47.52	Between within	233.78 56.081	1 27	233.785 2.077	112.55
Agility	Pretest Mean S.D	10.93 0.252	10.99 0.162	Between within	0.033 0.489	1 28	0.033 0.04495	0.742
	Posttest Mean S.D	10.73 0.123	10.96 0.141	Between within	0.385 0.489	1 28	0.385 0.0175	22.049
	Adjusted posttest mean	10.73	10.96	Between within	0.336 0.446	1 27	0.366 0.01653	20.307

Copyright ⓒ 2019Authors

ISSN:0971-1260
Vol-22- Issue-14-December-2019

RESULTS

The posttest mean of plyometric training group and control group on strength endurance resulted in a 'F' ratio of 48.344. The adjustment posttest mean of plyometric training group and control on strength endurance resulted in a 'F' ratio of 112.55 the result of the study indicate that there was a significant distance between plyometric training on strength endurance.

The posttest means plyometric training group and control group on agility result in a 'F' ratio of 22.049. The adjusted posttest mean of plyometric training group and control group on agility (10.73 Vs 10.96) resulted in a 'F' ratio of 20.307. The result of the study indicate that there was a significant difference between plyometric training and control group agility.

DISCUSSION ON FINDINGS

The result of the study indicates that the plyometric training group had significantly improved the selected dependent variables namely strength endurance and agility. However, control group did not show any improvement on the selected variables of it was not involved in any of the specific training means. The result of the study in consonance with the findings of due ro plyometric training, footballers stops abruptly and changes direction quickly, to do this, he drops his center of gravity lows, leans away from the centrifugal force, he is ready to push of inn the desired direction [john W. Bunn, 1972]. Plyometric as one of the training method to improve physical fitness variables for the game of soccer [welter winter's bottom, 1954]. Plyometric exercises were developed specially to improve physical fitness variables for track and field events [wilt and Evelyn freeman, 1984]. In this findings examined the effects of plyometric training drill on strength gains of collegiate football players [apothems and Burkard, 1990]. The other findings are in line with the findings [Watson, A.W.S.,1983], [SCronin, J.B.and Hansen, k.j., 2005] , troy burger, 1999].

CONCLUSION

Based on the result of study it was concluding that the plyometric training programmed as resulted in signification increases in selected fitness variable such as strength endurance and agility.

REFERENCE

1. Cronin, J.B Hanse, K.T, Strength and power predictors of sport speed.J.strength cond. Res., 19(2)(2005) ,pp-349-57.
2. Donald chu A., jumping into plyometric , 1998, p.1.
3. James Radcliff , C. and Robert predestines ,c., plyometric ,p.3
4. John W. bunn, Sinitic principles of coaching , pp 125
5. Prothema's and Burkard, "the effects of plyometric training drills on the physical strength gains of collegiate football players". National strength and conditioning association journal, 2, [1990].pp13-15.
6. Suresh, Kumar M. (2019). Comparative Analysis of Core Strength among Football Hockey and Kabaddi Players. *Think India Journal, 22,14, 1261-1264.*
7. Troyburger .complex training compered to a companied weight training and plyometric programmer, MS THESIS –abstract ,microgram public bulletin ,1999.
8. Walter winter bottom , soccer coaching [2nd ed., London: the naldrett press, 1954],pp-54-67

 Copyright ⓒ 2019Authors

ISSN:0971-1260
Vol-22- Issue-14-December-2019

9. Watson ,A.W.S. ,physical fitness and athletic performance.[New youk:longman inc.,1983].

 Copyright ⓒ 2019Authors