

Effect of 8 Weeks Plyometric Training Program on Shooting Performance of Basketball Players

Mr. Keerthi Kumar M.^{1*} Prof. Sundar Raj Urs²

¹Research Scholar, University College of Physical Education, Bangalore University, Bangalore

²University College of Physical Education, Bangalore University, Bangalore

Abstract – The purpose of the study was to find out the effect of Plyometric training on shooting performance among college basketball players. To achieve this purpose of the study 40 Male basketball players are selected randomly and the age group of subject ranged from 18-23years. The subjects were divided into two equal group of 20 each Group-I underwent Plyometric training and Group-II acted as control that did not participate in any special training apart from their regular curricular activities. The subjects were tested on selected criterion variable such as shooting performance prior to and immediately after the training period. The selected criterion variable such as shooting performance was determined through malty shooting test. The analysis of covariance (T-TEST) was used to find out the significant differences if any, between the experimental group and control group on selected criterion variable. In all the cases, 0.05 level of confidence was fixed to test the significance, which was considered as an appropriate. The result of the present study has revealed that there was a significant difference among the experimental and control group on shooting performance.

Keywords: Plyometric Training; Basketball; Shooting Performance

INTRODUCTION

Basketball is one of the today's fastest team sports and is epitomized by grandiose Maneuvers such as the slam-dunk and blocked shot. In this game everyone should mastery over fundamental skills like Dribbling, passing, shooting, rebounding, defense etc. When one has mastered the fundamental skills of the games, he gets a feeling of wellbeing. High level of performance otherwise known as playing ability in basketball depends upon proficiency over the fundamental skills. High level of performance of a basketball player depends upon fundamental skills. It is recognized that among the fundamentals, ability to dribble the ball, ability to shoot, ability to passing, ability to rebounding, ability to shoot are of primary importance for high level of performance. How to shoot a basketball correctly is the most important skill you need to master in order to play the game. Using the right form helps you score more points, so take the time to learn how to shoot before you hit the court.

METHODOLOGY

The purpose of the study was to find out the effect of Plyometric training on shooting

Performance among Don Basco Basketball players. To achieve the purpose of the study, 24 male

basketball players were selected as subjects who were from the various departments in Donbasco institution, chitradurga, Karnataka. The selected students in the age of 18-23 years were chosen as sample for the study. The selected participants were divided into two groups. Group I underwent Plyometric training and group II act as control group. The experimental groups underwent eight weeks of training in their particular workout. For this study dependent variable is shooting performance. The data were collected at prior and immediately after the training period. The data was analysis by using standardized 't' test. And the level of significance set as 0.05.

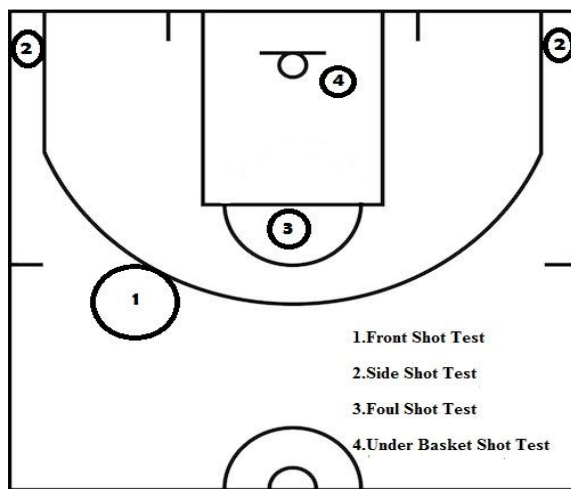
TRAINING SCHEDULE

PLYOMETRIC TRAINING PROTOCOL OF THE STUD

Training schedule for group- 1 (Plyometric training group)

Weeks	Plyometric training program	Intensity repetitions/sets/ rest between sets
1-4 weeks	<p>1) Upper body plyometric exercises Medicine ball throw (chest pass, overhead throw, side arm throws, under arm throw, backward throw, sit-up throw, medicine ball toss.)</p> <p>2) Lower body plyometric exercises Ankle hops, vertical jumps, rotations (right & left 90°, 180°,360°), front obstacle jump, lateral obstacle jump, leg lunging, single leg hops, power skipping, repeated tuck jump, alternate leg bounding and squat jump.</p>	Intensity 40-50-% Repetitions 3-5 Sets-3 Rest between sets 3-5 min
5-8 weeks	<p>1) Upper body plyometric exercises Medicine ball throw (chest pass, overhead throw, side arm throws, under arm throw, backward throw, sit-up throw, medicine ball toss.)</p> <p>2) Lower body plyometric exercises Ankle hops, vertical jumps, rotations (right & left 90°, 180°,360°), front obstacle jump, lateral obstacle jump, leg lunging, single leg hops, power skipping, repeated tuck jump, alternate leg bounding and squat jump.</p>	Intensity-60% Repetitions 5-8 Sets-3 Rest between sets 2-3 min

TEST ADMINISTRATION MALTY SHOOTING



Front Shot Test: The subject shoots from a marked spot to the left of the free throw line just outside the circle. A total of 15 (fifteen) trials is given in series of 5 (five) at a time. A basket made counts two points; one point is awarded for a shot that hits the rim but does not go in (provided it does not hit the backboard before it hits the rim). **Side Shot Test** A line is drawn near the corner of the court at each side of the basket -20 feet for boys, measured from the centre of the basket. The subject shoots 10 (ten) shots from each side, using any type shot. **Foul Shot Test:** The subject shoots 20 (twenty) free throws in a series of 5 (five) at a time. He must leave the spot after each five shots. One point is given for each basket made regardless of how it goes in. **Under Basket Shot Test:** To test under-basket shooting ability under stress of time. The subject stands with the ball under the basket. On the signal to

begin, he starts marking as many layup shots as possible within 30 seconds. One point is made for each basket made. The number of baskets made in 30 seconds in the better of the two trials is the test score.

RESULTS

The statistical analysis comparing the initial and final means of shooting performance due to Plyometric have been presented in Table I.

TABLE I

COMPUTATION OF ANALYSIS OF COVARIANCE ON SHOOTING PERFORMANCE

TEST	PLYOMETRIC TRAINING	CONTROL GROUP	t value
Pre test	11.90	10.42	1.08
Post test	15.34	10.43	5.72*
Adjusted	16.06	10.40	7.37*

Table I shows the analyzed data of shooting performance. The shooting performance pre means were 11.90 for the Plyometric training group and 10.42 for the control group. The resultant T value of 1.08 was not significant at .05 levels indicating that the two groups were no significant variation. The post-test means were 15.34 for the Plyometric training group and 10.43 for the control group. The resultant t value of 5.72 at .05 level indicating that was a significant difference. The difference between the adjusted post-test means of 16.06 for the Plyometric training group and 10.40 for the control group yield on t value 7.37 which was significant at .05 level. The results of the study indicate that there is a significant difference among Plyometric training and control groups on the shooting performance.

DISCUSSION/CONCLUSIONS:

The results of the study proved that there were significant differences between control groups and Plyometric training group. The eight weeks of experimental treatment significantly influence on shooting performance in college students.

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Corresponding Author

Mr. Keerthi Kumar M.*

Research Scholar, University College of Physical
Education, Bangalore University, Bangalore

E-Mail – kumarkeerthi086@gmail.com