



IMPACT OF PLYOMETRIC TRAINING PROGRAMME ON SPEED AMONG INTER-COLLEGIATE LEVEL WOMEN BASKETBALL PLAYERS

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Abstract

The reason of this study was to discover the Impact of Plyometric Training Programme on Speed among Inter-Collegiate Level Female Basketball Players. To realize this purpose of the study twenty various colleges of Vijayapura district, Karnataka state, India. The subject had past experience of at least three years in Basketball and was randomly selected as subjects. Their age ranged in between 19 and 22 years. The subjects were divided into two groups namely Plyometric group and control group. The Plyometric group was subjected to Plyometric training (for weekly three days Monday, Wednesday, Friday) at evening session for six weeks. Speed was selected as dependent variable. After the collection of appropriate data, it was statistically analyzed by using paired' test. The level of significance was set at 0.05. The result of the present study showed that the plyometric training has significant improvement on Speed, of inter-collegiate level Female Basketball players.

Keywords: *Plyometric training, Speed, Basketball Women's players.*

Introduction

The concept of plyometric exercise is defined as “exercises that enable a muscle to reach maximum strength in as short a time as possible”. Plyometric training has become a growing necessity in most sports performance training programs. This explosive type of training got its start with mainly high level Athletes competing in various sports. Through years of development and understanding, almost any athlete in any sport can utilize the benefits of plyometric training. Plyometric training can range from low intensity hops to powerful jumps with the wide variety of drills and exercises.

Plyometrics can include different types of exercises, like pushups, throwing, running, jumping, and kicking. Athletes often use plyometrics as part of their training, but anyone can do these workouts. People who are in physical rehab after an accident or injury use plyometrics to get back into good shape and physical function. Plyometrics, also known as jump training are exercises in which muscles exert maximum force in short intervals of time, with the goal of increasing power (speed-strength). This training focuses on learning to move from a muscle extension to a contraction in a rapid or "explosive" manner, such as in specialized repeated jumping. Plyometrics are primarily used by athletes, especially martial artists, sprinters and high jumpers, to improve performance, and are used in the fitness field to a much lesser degree.

Objectives of the study

The core aim of the present study was to find out the Impact of Plyometric Training Programme on Speed among Inter-Collegiate Level Women's Basketball Players.

Methodology

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various colleges of Vijayapura, District, Karnataka state, India. The subject had past experience of three years in Basketball and was randomly selected as subjects. Their age ranged in between 19 and 22 years. The subjects were divided into two groups namely Plyometric Training group and control group. The Plyometric Training group was subjected to Plyometric training (for weekly three days Monday, Wednesday, Friday) at evening session for six weeks. Speed, was selected as dependent variable. After the collection of appropriate data, it was statistically analyzed by using paired' test. The level of significance was set at 0.05.

Table Criterion Measures Speed Variables

Variables	Test Items	Unit of Measurement
Speed	30 M. Flying Start Test	In Seconds

Training Procedure

For plyometric group underwent their training programme as three days per week for six weeks. Training was given in the evening session. The training session includes warming up and cool down. Every day the workout lasted for 45 to 60 minutes approximately. The subjects underwent their training programmes as per the schedules such as side to side ankle hops, double leg hops, split jumps, lateral cone hops and single leg bounding under the strict supervision of the investigator. During experimental period control group did not participate in any of the special training.

Results

Table Comparison of Mean, and 't'-Values of peed between Pre & Post Test among Polymeric and Control Groups

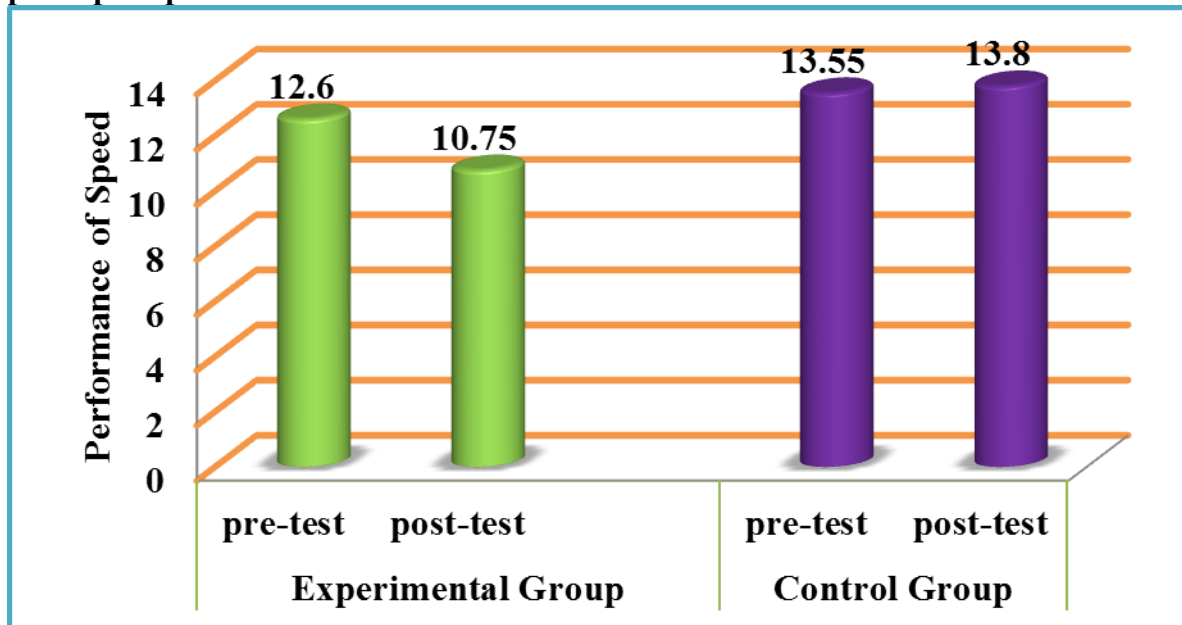
Variable	Groups	Test	N	Mean	SD	t- Value
Speed	Experimental Group	Pre-test	12	12.60	1.984	8.86*
		Post-test	12	10.75	1.292	
	Control Group	Pre-test	12	13.55	1.877	1.75
		Post-test	12	13.80	1.609	

*The level of significant 0.05=Table value 2.26

Table demonstrates the mean of Speed of pre-test of Experimental group was 12.60 and post-test of Experimental group was 10.7500, while mean of Speed of pre-test of control group was 13.5500 and post-test of Control group was 13.8000 in scores. The t-value of experimental group and control group was 8.865* and 1.751 respectively. After analyzing data, results reveals an extremely significant difference between pre-test and post-test of experimental group but no significant difference found between pre-test and post-test of control group.



Figure of the Pre-test and Post-test for Plyometric training Experimental Group and Control Group on Speed performance.



The above figure indicates that the post-test values of Experimental group significantly improved the performance of Speed and also the post-test values of Speed more than the pre-test values due to 6 weeks of Plyometric training. The Control group pre-test and post-test performance of Speed shows no improvement.

Discussion on Finding

The results of the study indicated that the Speed were improved significantly after undergoing Plyometric training. The changes in the Speed were attributed the proper planning, preparation and execution of the training package given to the players. The findings of the present study had similarity with the findings of (S. Senthil Kumaran 2018).

Conclusions

The results of the present study indicate the Impact of Plyometric Training Programme on Speed among Inter-Collegiate Level Female Basketball Players. In the experimental group the selected variables were significantly improved in the teach us that Plyometric training is useful to everyone in particularly sports persons to achieve the higher performance level because the selected variables in the study were more related to the sports men too. Further the control group post-test means score indicates that the Plyometric training not improvement.

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