RESEARCH PAPER | Education | Volume : 6 | Issue : 7 | July 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 74.50

Effect of Specific Drills With Plyometric Training on Selected Skill performance Variables of School Level Men Handball Players

KEYWORDS: Dribbling, Passing and Plyometric Training with specific drills.

N.EZHILMARAN

Ph.D Scholar, Ramakrishna Mission Vivekananda University, Faculty of General & Adapted Physical Education and Yoga, Coimbatore- 641020. Tamil Nadu

ABSTRACT *The purpose of the study was to find out the effect of specific drills with plyometric training on selected skills performance variables of school level men handball players. For this purpose, forty men players were selected from Ramakrishna Mission Vidyalaya Swami Sivananda Higher Secondary school Coimbatore. The age group of the subjects ranged from 13 to 17 years. They were selected by random sampling method and divided into 2 groups namely Group –A Experimental group and Group B control group and each group consisting of 20 subjects. The experimental group underwent specific drills with plyometric Training for a period of twelve weeks and was tested before and after the training programme. The selected criterion variables are selected dribbling and passing. The dribbling skill tested with 6 mtr speed dribble test and passing skill tested with speed pass test standardized tests were used. The collected data were treated with by using dependent 't' test. The level of significant was fixed at 0.05. The results showed that the experimental group showed improvement in selected skill performance variables were dribbling and passing due to effect of specific drills with plyometric training. The control group did not improve the selected the criterion variables.*

INTRODUCTION

The games that were precursors of handball can only said to be distantly related to it in terms of their structure and rules of play. Nonetheless, the games of "Urania" played by the Ancient Greeks (and described by Homer in the Odyssey) and "Harpaston" played by the Romans (and described by the Roman doctor Claudius Galenus in 130 to 200 A.D.) as well as in the "Fangballspiel" (or 'catch ball game') featured in the songs of the German lyrical poet Walther von der Vogelweide (1170 - 1230) all contained certain features that can be described as ancient forms of handball. In France, Rabelais (1494-1533) described a form of handball: "The play ball using the palm of their hand." Furthermore, in 1793 the Inuit people living in Greenland described and amde illustrations of a ball game played using the hands. Meanwhile, in 1848 the Danish sports administrator Holger Nielsen gave permission for a "handball game" to be played in Ortrup secondary school and promptly laid down the corresponding rules for it.

By plyometrics we mean an exercise regimen that enables a muscle to reach its maximal strength in as short a time as possible. Such exercises usually involve jumping. The words, 'pilo' and 'metric' have come from Latin meaning "increase" and "measure" respectively. Their combination means "Measurable increase". Plyometric exercises utilize the force of gravity to store energy in the muscles (Potential energy). This energy is then utilized immediately in an opposite reaction as an immediate jump upon landing. Thus, the natural elastic properties of the muscle produce kinetic energy. Plyometric exercises are especially useful in sports that require speed-strength and also the ability to extent maximal force during high speed movements. Sports that require speed-strength include track and field jumping, throwing and sprinting.

METHODOLOGY

For this purpose, forty men players were selected from Ramakrishna Mission Vidyalaya Swami Sivananda Higher Secondary school Coimbatore. The age group of the subjects ranged from 13 to 17 years. They were selected by random sampling method and divided into 2 groups namely Group –A Experimental group and Group B control group and each group consisting of 20 subjects. The experimental group underwent specific drills with plyometric Training for a period of twelve weeks and was tested before and after the training programme. The selected criterion variables are selected dribbling and passing. The dribbling skill tested with 6 mtr speed dribble test and passing skill tested with speed pass test standardized tests were used. The collected data were treated with by using dependent 't' test. The level of significant was fixed at 0.05.

TRAINING PROGRAMME

The specific drills with Plyometric Training was given to the experimental group for 12 weeks between 4.30 pm to 5.30 pm every evening for 3 days, in a week namely Mondays, Wednesdays and Fridays. For the prescribed specific drills with Plyometric Training, the investigator followed the principle of progression on load. The experimental load was fixed according to the capacity of the subject. After every two weeks, the load was increased as also an increase was made in the number of repetitions.

The following training program was given to the subjects for 12 weeks and the same is presented in table I

TABLE-I

Days	Training	Repetition	Sets	Total Duration
Monday	Zig-zag dribbling 15m dribbling One to one pass Overhead pass Leg pull-up	6	3	4.30 pm to 5.30 pm
Wednesday	Hurdle jump Zigzag hopping Standing jump Cross box training			
Friday	Depth jump Bounding jump			

Volume : 6 | Issue : 7 | July 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 74.50

RESULTS

TABLE-II

COMPUTATION OF 't' TEST ON DRIBBLING AND PASSING OF EXPERIMENTAL AND CONTROL GROUPS OF SCHOOL LEVEL MEN HANDBALL PLAYERS

Variable	Group	Test	Mean	S.D	Correlation	't'
Dribbling	Experimental	Pre Test	8.24	0.748	0.557	3.19*
		Post Test	7.78	0.534		
	Control Group	Pre Test	8.25	0.558	0.863	1.89
		Post Test	8.11	0.482		
Passing	Experimental	Pre Test	12.35	2.030	0.759	5.92*
		Post Test	14.45	2.420		
	Control Group	Pre Test	12.05	2.874	0.601	0.81
		Post Test	12.50	2.665		

***Significant Level was fixed at 0.05 with df 19 Table value 2.09**

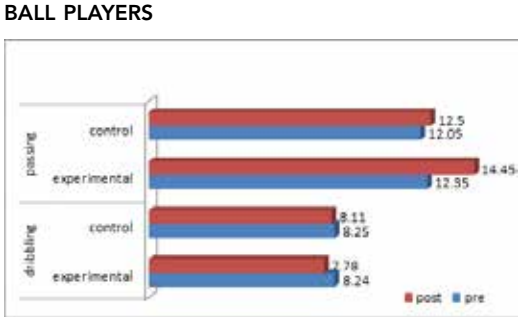
Table-II revealed the experimental and control group's skill performance variables mean and standard deviation of school level men handball players. The dribbling experimental group pre and post test mean values is found to be 8.24 and 7.78 and standard deviation values of 0.748 and 0.534 where as obtained 't' value is 3.19 which in greater than table value of 2.09 with df 19. The dribbling control group mean values are 8.25 and 8.11 and standard deviation are 0.558 and 0.482. The results of 't' value is 1.89 which is lesser than the table value of 2.09.

The passing experimental group pre and post test mean values is found to be 12.35 and 14.45 and standard deviation values of 2.030 and 2.420 where as obtained't' value is 5.92 which in greater than table value of 2.09 with df 19. The passing control group mean values are 12.05 and 12.50 and standard deviation are 2.874 and 2.665. The results of 't' value is 0.81 which is lesser than the table value of 2.09.

The findings of the study indicate that experimental group shows a significant improvement on dribbling and passing due to plyometric training of college level handball players. The mean values of pre and post test on dribbling and passing presented in figure- 1.

FIGURE-1

THE MEAN VALUES OF EXPERIMENTAL AND CONTROL GROUPS OF PRE AND POST TESTS ON DRIBBLING AND PASSING OF SCHOOL LEVEL MEN HANDBALL PLAYERS



DISCUSSION ON FINDINGS

The results of the study revealed that the 12 weeks of training programme of experimental group had a improvement on dribbling and passing ability of school level handball players. The results line with that study on impact of plyometic training improved on speed and power of tennis players.(**Salonikidis, Zafeiridis 2008) and Villarreal, Kellis, Kraemer, (2009).**

CONCLUSIONS

1. The specific drills with plyometric training group had significantly improved on dribbling and passing ability of school level handball players due to the effect of specific drills with plyometric training programme.
2. The control group did not improve on selected skill performance variables.
3. REFERENCES

4. **Abbas** Asadi (2011), Effect of a 6 week of plyometric training on electromyography changes and performance. Journal of Sports Science **Vol. 4 issue 2,p38-42**.
5. **Chelly, Fathloun, Cherif, (2009)** Effects of a back squat training program on leg power, jump, and sprint performances in junior soccer player. Strength condition Research **23(8):2241-9.**
6. **Salonikidis, Zafeiridis (2008)** The effects of plyometric, tennis-drills, and combined training on reaction, lateral and linear speed, power, and strength in novice tennis players Journal of Strength and condition Research **22(1):182-91**.
7. **Thomas, French, Hayes (2009)** The effect of two plyometric training techniques on muscular power and agility in youth soccer players Journal of Strength and condition Research **23(1):332-5.**
8. **Villarreal, Kellis, Kraemer, (2009)** Determining variables of plyometric training for improving vertical jump height performance: a meta-analysis Journal of Strength and condition Research **23(2):495-506**.