



## **EFFECT OF SPECIFIC TRAINING PROGRAMME ON DRIBBLING PERFORMANCE AMONG UNIVERSITY HOCKEY PLAYERS**

**Dr. P. V. Shelvam\* & Dr. Baljit Singh Sekhon\*\***

\* Professor, Department of Physical Education and Sports Sciences, Annamalai University, Annamalainagar, Chidambaram, Tamilnadu

\*\* Deputy Director of Sports and Head, Nagaland University, Lumami, Nagaland

### **Abstract:**

*The purpose of the study was to find out the effect of specific training on dribbling performance among university hockey players. To achieve this purpose of the study, thirty men hockey players were selected as subjects who were from the various faculties, Annamalai University, Annamalainagar. The selected subjects were aged between 19 to 24 years. They were divided into two equal groups of fifteen each, Group I underwent specific training and Group II acted as control that did not participate in any special training apart from their regular sports and games practices. The subjects were tested on selected criterion variables such as dribbling prior to any immediately after the training period. The selected criterion variable such as dribbling was measuring by w dribble test. The analysis of covariance (ANCOVA) was used to find out the significant differences if any, between the experimental group and control group on selected criterion variable. The 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 dribbling performance.*

**Key Words:** Specific Training, Dribbling & Hockey.

### **1. Introduction:**

The primary objective of sports training is to stress various bodily systems to bring about positive adaptation in order to enhance sporting performance. To achieve this objective, coaches and athletes systematically apply a number of training principles including overload, specificity and progression, organized through what is commonly termed periodization. The application of these principles involves the manipulation of various programme design variables including choice of exercise, order of training activities/exercises, training intensity (load and repetition), rest periods between sets and activities/exercises and training frequency and volume in order to provide periods of stimulus and recovery, with the successful balance of these factors resulting in positive adaptation (1). Sport specific training is simply fitness and performance training designed specifically for athletic performance enhancement. Training programs for athletic performance enhancement could include such areas as strength, speed, power, endurance, flexibility, mobility, agility, mental preparedness (including goal setting), sleep, recovery/regeneration techniques and strategies, nutrition, rehabilitation, pre-habilitation, and injury risk reduction. A general program should include all of these components and a more specific program may only include a few, depending upon the athlete's specific needs (based on strengths, weaknesses and/or imbalances) and the demands of the sport they participate in (2). Every shot in hockey is not just one motion, but a combination of many subtle movements. Every part of your body is working together to generate power, accuracy, lift and control of the puck. If one part of your shot is lacking, or incomplete this will result in less power and accuracy (3). Field Hockey coaches are constantly on the lookout for drills and skills that are going to make their players better. Further, being able to put those drills together with a practice plan to reinforce those skills makes it all the more effective. Repetition of skills is the

best way to get your players to perform better. Knowing what to do when the opportunity presents itself is one of the hallmarks of a good player. The more practice, the more inclined your players are to do the right thing at the right time. Skill development is essential to having a good field hockey team.

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- Ball Control Drills
- Passing, Shooting and Attacking
- Offensive and Defensive Drills and Tactics (4).

The dribbling drills can be inserted at any time during the practice. "Dribbling"; where the player controls the ball with the stick and moves in various directions with it to elude opponents. To make a pass the ball may be propelled with a pushing stroke, where the player uses their wrists to push the stick head through the ball while the stick head is in contact with it; the "flick" or "scoop", similar to the push but with an additional arm and leg and rotational actions to lift the ball off the ground; and the "hit", where a swing at ball is taken and contact with it is often made very forcefully, causing the ball to be propelled at velocities in excess of 70 mph (110 km/h). In order to produce a powerful hit, usually for travel over long distances or shooting at the goal, the stick is raised higher and swung with maximum power at the ball, a stroke sometimes known as a "drive" (5). While there may be some sense of specificity to a program designed for an athlete of a specific sport, the truth is that there is a limit to the amount of application/carryover of a sports performance exercise to a sports skill. The most sports specific training that can be done is the sport itself. Sports specific skills practiced for the sport are as specific as one can get. The same is true for shooting the puck. However, while there are sports specific skills necessary for each sport, there are also physical skills necessary for each sport. Sports preparation is necessary for the sport specific skills (shooting a basketball, pitching a baseball, etc.) and physical preparation is needed for specific performance enhancement such as foot speed, strength, power, etc (6).

### **1.1 Objectives of the Study:**

The main objective of the study was to assess the effect of specific training on dribbling which would help to enhance performance of hockey players. The present study was designed to obtain the data on the men players from various faculties of Annamalai University, Annamalainagar.

### **1.2 Statement of the Problem:**

The purpose of the study was to determine the effect of specific training programme on dribbling among Nagaland University hockey players.

### **1.3 Delimitations:**

- a. The study was delimited to Annamalai University, Annamalainagar.
- b. The study was delimited to 30 hockey players; their age was 19 to 24 years.
- c. The study was restricted to the dependent variable is dribbling performance and independent variables are specific training.

### **1.4 Significance of the Study:**

- a. The findings of the study may be helpful for university hockey players to apply specific training which will help in better performance.
- b. The findings of the study would be helpful for the trainers to know the role of dribbling influence their performance.
- c. The results of the study may be helpful to fitness trainers, coaches, physical educationist and exercise physiologists to design proper training protocol for other populations.

**2. Methodology:**

In the present study all the students studying in various faculties, Annamalai University, Annamalainagar were considered as population for the study. A representative sample of 30 hockey players in the age of 19-24 years was chosen as sample for the study. The selected participants were divided into two groups. Group I underwent specific 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.

**2.1 Test Administration – W Dribble Test**

**Purpose:**

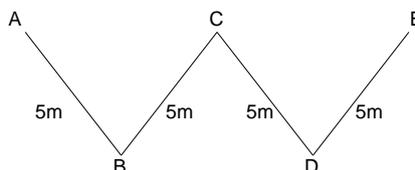
The purpose of this test is to measure the dribbling ability of the hockey players.

**Equipments and Materials:**

Hockey stick, balls, cones, stop watch, measuring tape, paper and pencil were used.

**Procedure:**

**W Dribble Test**



Use cones to mark out three lines as per the diagram above; each cone 5 meters distance. The subjects were asked to dribble the balls from cone A to cone B to cone C to cone D to cone E and return back from E to D to C to B to A.

**Scoring:**

The score is the elapsed time to the nearest tenth of a second between the starting from A to E and return back from E to A.

**2.2 Analysis of Data:**

The data obtained were analyzed by analysis of covariance (ANCOVA). Analysis of covariance was computed for any number of experimental groups, the obtained 'F' ratio compared with critical F value for significance (7).

**3. Results:**

The statistical analyses of dribbling performance due to specific training have been presented in Table I.

**Table - I**  
**Analysis of Covariance on W Dribble Test of Specific Training Group and Control Group**

	<b>Experimental Group</b>	<b>Control Group</b>	<b>Source of Variance</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Squared</b>	<b>'F' ratio</b>
Pre- test Mean	9.94	9.90	Between	0.01	1	0.01	0.14
S.D.	0.19	0.31	Within	1.96	28	0.07	
Post-test Mean	9.38	9.96	Between	1.49	1	1.49	37.25*
S.D.	0.15	0.23	Within	1.11	28	0.04	

Adjusted Post-test Mean	9.38	9.97	Between	1.61	1	1.61	80.05*
			Within	0.54	27	0.02	

\* Significant at .05 level of confidence. Table value required for significance at .05 level with df 1 and 28 and 1 and 27 are 4.20 and 4.21.

Table – I showed that the pre-test values of W dribble test for specific exercise training group and control group were  $9.94 \pm 0.19$  and  $9.90 \pm 0.31$  respectively. The obtained 'F' ratio value of 0.14 for pre-test score of specific exercise training group and control group on W dribble test was less than the required table value of 4.20 for significance with df 1 and 28 at .05 level of confidence.

The post-test mean values of W dribble test for specific exercise training group and control group were  $9.38 \pm 0.15$  and  $9.96 \pm 0.23$  respectively. The obtained 'F' ratio value of 37.25 for post-test scores of specific training exercise group and control group was more than the required table value of 4.20 for significance with df 1 and 28 at .05 level of confidence.

The adjusted post-test mean values of W dribble test for specific exercise training group and control group were 9.38 and 9.97 respectively. The obtained 'F' ratio value of 80.05 for adjusted post-test scores of specific exercise training and control group was more than the required table value of 4.21 for significance with df 1 and 27 at .05 level of confidence.

The results of this study showed that there was a significant difference among specific exercise training group and control group on W dribble test.

**4. Discussion/Conclusions:**

The results of the study proved that there were significant differences between control group and specific training group. The eight weeks of experimental treatment significantly influence on dribbling performance in university hockey players. The above results are supported by Cosio-Lima (5), willardson (6) and Staton, Reaburn and Humpries (7).

**5. References:**

1. Takken, T., et al. (2003), "Physical Activity and Health Related Physical Fitness in Children with Juvenile Idopathic Arthritis". The European League Against Rheumatism Journal, 62: 885 and 885-889.
2. Thomas, A., Dawson, B. & Goodman, C. (2006). The yo-yo test: reliability and association with a 20-m shuttle run and VO2max. International Journal of Sports Physiology and Performance, 2, 137-149.
3. www.how to hockey.com/ what is your shot missing – coach Jersey, april 30, 2015.
4. www.assets.ngin.com/field hockey drills and practice plans.
5. Dave Chambers, The Hockey Drill Book, Human Kinetics (US: Champaign, 2008) 23-24.
6. Jens Bangsbo, F. Marcello Iaia and Peter Krusturup, (2008) The Yo-Yo Intermittent Recovery Test: A Useful Tool for Evaluation of Physical Performance in Intermittent Sports, Sports Medicine 2008; 38 (1): 37-51.
7. David H. Clarke and H. Harrison Clarke, Advanced Statistics, (New Jersey: Prentice Hall Inc., 1988).
8. LM Cosio-Lima, et. Al., "Effects of Physioball and Conventional Floor Exercises on Early Phase Adaptations in Back and Abdominal Core Stability and Balance in Women", J Strength Cond Res., 2003: 17(4) 721-25.
9. JM. Willardson, "Core Stability Training: Applications to Sports Conditioning Programs", J Strength Cond Res., 2007: 21(3) 979-85.

10. R. Stanton, PR. Reaburn and B. Humphries, "The Effect of Short-Term Swiss Ball Training on Core Stability and Running Economy", *J Strength Cond Res.*, 2004: 18(3) 522-28.