Academic Sports Scholar Vol. 3 | Issue. 4 | April 2014

ISSN: 2277-3665

ORIGINAL ARTICLE

# EFFECT OF SPORTS SPECIFIC DRILLS WITH MEDITATION ON PSYCHOMOTOR COMPONENTS AND SKILL VARIABLES OF INTER COLLEGIATE MEN HOCKEY PLAYERS

#### R. Muniyappan and T. Radhakrishnan

M.Phil scholar in Department of Physical Education, Bharathiar University, Coimbatore, Tamil nadu, India. Assistant Professor in Department of Physical Education, Bharathiar University, Coimbatore. Tamil nadu, India.

#### Abstract:

The purpose of this study was to find out the effect of sports specific drills with meditation on psychomotor components and skill variables of inter-collegiate men hockey players. To achieve the purpose of the study, thirty male hockey players were randomly selected from Government Arts College, Coimbatore. Their age ranged from 18 to 25 years. They were divided into two equals groups. The subjects were tested in order to find out psychomotor variables of namely coordination, depth perception, reaction time. The group I was considered as control group and group II was considered as experimental group. The investigator did not made any attempt to equate the group. The control group was not given any treatment and the experimental group was given sports specific drills with meditation for three days per week. The experimental group was given training for the period of six weeks of sports specific drills with meditation.

## **KEYWORDS:**

Coordination, Depth perception, Reaction time.

### **INTRODUCTION**

The present study assessed the relative importance of attributes determined largely by the efficiency of the central nervous system versus cognitive attributes in the determination of expertise in field hockey. Three groups were assessed on a battery of field hockey related perceptual and cognitive tasks: the canadian women's field hockey team, a university team, and a novice group. The attributes assessed were simple reaction time, dynamic visual acuity, coincident anticipation, ball detection speed and accuracy, complex decision speed and accuracy, shot prediction accuracy both when ball impact was viewed and when it was occluded, and recall accuracy of game-structured and nanostructure information. The multitask approach revealed the importance of cognitive abilities in the determination of skill in field hockey. The rest in meditation is deeper than the deepest sleep that you can ever have. When the mind becomes free from agitation, is calm and serene and at peace, meditation happens. The benefits of meditation are manifold. It is an essential practice for mental hygiene. A calm mind, good concentration, clarity of perception, improvement in communication, blossoming of skills and talents, an unshakeable inner strength, healing, the ability to connect to an inner source of energy, relaxation, rejuvenation, and good luck are all natural results of meditating regularly. Psychomotor components are functioning as a compliment to the physical components to execute in the desirable way. The psychomotor components of reaction time, co-ordination and depth perception are functioning as a tuner in completion of physical movement in the sports.

Please cite this Article as : R. Muniyappan and T. Radhakrishnan , EFFECT OF SPORTS SPECIFIC DRILLS WITH MEDITATION ON PSYCHOMOTOR COMPONENTS AND SKILL VARIABLES OF INTER COLLEGIATE MEN HOCKEY PLAYERS : Academic Sports Scholar (April ; 2014)

### EFFECT OF SPORTS SPECIFIC DRILLS WITH MEDITATION ON PSYCHOMOTOR COMPONENTS ......

### **METHODOLOGY**

The purpose of this study was to find out the effect of sports specific drills with meditation psychomotor components and skill variables of inter-collegiate men hockey players. To achieve the purpose of the study, thirty male hockey players were randomly selected from Government Arts College, Coimbatore. Their age ranged from 18 to 25 years. They were divided into two equals groups. The group I was considered as control group and group II was considered as experimental group. The investigator did not made any attempt to equate the group. The control group was not given any treatment and the experimental group was given sports specific drills with meditation for three days per week. The experimental group was given training for the period of six weeks of sports specific drills with meditation.

#### **CRITERION MEASURES**

Test used to assess selected psychomotor components and skill variables are given as follows

Table-1	Та	bl	e-I
---------	----	----	-----

s.no	Variables	Test equipments	Unit of measurements
1.	Reaction time	chronoscope	In Seconds
2.	Co ordination	Mirror tracer	In Numbers
3.	Depth perception	Monocular cues	Cm

#### **Result and Statistical Technique**

This present study of finding the effect of sport specific drills with meditation on psychomotor components and skill variables namely hand-eye coordination, reaction, depth perception as subjects' intercollegiate level hockey were selected. The selected subjects have been tested using standardized instrument on variables used in the study. Thus the collected data on hand eye coordination, reaction time and depth perception were tested using analysis of covariance to find out the efficacy of sports specific drills meditation.

The results derived from analyzing the variance exist between the male hockey players of sports specific drills and control and experimental group on pre-test, post test are given in the following tables.

1able-11 '1' test for Reaction th
-----------------------------------

Control group (CTG)						
Tests	Mean	SD	SEM	MD	T-value	
Pre test	0.33	0.22	0.07	0.02	0.22	
Post test	0.35	0.22	0.07	0.02	0.55	
Experimental group (EXG)						
T-ratio	Mean	SD	SEM	MD	<b>T-value</b>	
Pre test	0.33	0.22				
Post test	0.35	0.22	0.05	0.02	0.36	

Table-II: Reveals that the 't' value was 0.33. The obtained t- value (0.33) to be significant at 0.05 level of significance, which requires 2.14 for the degree of freedom, 1 and 14. Here the observed 't' value was found to be insignificant since it failed to reach the significance level. Table-II Reveals that the 't' value was 0.36 The obtained t- value (0.36) to be significant at 0.05

Academic Sports Scholar | Volume 3 | Issue 4 | April 2014

2

#### EFFECT OF SPORTS SPECIFIC DRILLS WITH MEDITATION ON PSYCHOMOTOR COMPONENTS ......

level of significance, which requires 2.14 for the degree of freedom, 1 and 14. Here the observed 't' value was found to be insignificant since it failed to reach the significance level.

Control group (CTG)						
T-ratio	Mean	SD	SEM	MD	T-value	
Pre test	1.33	1.22				
Post test	0.86	0.77	0.13	0.47	3.70	
Experimental group (EXG)						
T-ratio	Mean	SD	SEM	MD	<b>T-value</b>	
Pre test	1.05	0.74				
Post test	1.31	2.13	0.07	0.25	3.79	

## Table-III 'T' test for Depth Perception

Table-III (CTG): Reveals that the 't' value was 3.70 The obtained t- value (3.70) to be significant at 0.05 level of significance, which requires 2.14 for the degree of freedom, 1and14. Here the observed 't' value was found to be n insignificant since it failed to reaches the significance level.

Table-III (EXG): Reveals that the 't' value was 3.79 The obtained t- value (3.79) to be significant at 0.05 level of significance, which requires 2.14 for the degree of freedom, 1and14. Here the observed 'f value was found to be significant since it failed to reach the significance level.

Table-IV	'T'	test for	r Hand	eye	Co-ordi	nation
----------	-----	----------	--------	-----	---------	--------

Control group (CTG)						
T-ratio	Mean	SD	SEM	MD	T-value	
Pre test	11.00	5.91				
Post test	7.60	4.36	0.67	3.40	5.09	
Experimental group (EXG)						
T-ratio	Mean	SD	SEM	MD	T-value	
Pre test	11.07	4.04				
Post test	12.13	14.98	0.41	1.07	2.62	

**Table-IV (CTG):** Reveals that the 't' value was 5.09 The obtained t- value (5.09) to be significant at 0.05 level of significance, which requires 2.14 for the degree of freedom, 1 and 14. Here the observed 't' value was found to be insignificant since it failed to reach the significance level.

**Table-IV (EXG):** Reveals that the 't' value was 2.62. The obtained t- value (2.62) to be significant at 0.05 level of significance, which requires 2.14 for the degree of freedom, 1 and 14. Here the observed 't' value was found to be significant since it failed to reach the significance level.

#### **DISCUSSION OF FINDINGS**

The present study was aimed at to find out the effect of sport specific drills with meditation on

For this the data were collected using standardized test on select variables before and after treatment from

Academic Sports Scholar | Volume 3 | Issue 4 | April 2014

3

#### EFFECT OF SPORTS SPECIFIC DRILLS WITH MEDITATION ON PSYCHOMOTOR COMPONENTS ......

the subjects. The collected data were tested with paired. 'T' test to test the changers from baseline to post treatment if any on select variables. Further to achieve the main purpose of finding the effect of sports specific drills with meditation, the collected data before and after training were tested by analysis of after training were tested by 't' test so as to overcome the extraneous variance if any influencing the results of the study. Thus the derived results from paired 't' test are discussed with theoretical and imperial measurements.

In discussing the results pertain to changes before and after treatment of experiments and control group, on select psychomotor components and skills performance variables.

#### **CONCLUSION**

Based on the results the following conclusions have been made.

Results than the reaction 't' test explained that, other than the reaction time, significant change have been observed from base line to post -test on psychomotor components namely hand eye coordination, and depth perception and skill performance variables due to the six week sports specific drills with meditation. From these results it was concluded that complementary effect of meditation when adding with sports specific drills, may be a significant source for the changes takes place on psychomotor and skill performance variables of passing, dribbling and shooting.

#### REFERENCE

1.Debruille JB, Renault. 2009 Effects of semantic matching and of semantic category on reaction time and N400 that resist numerous repetitions. Jan; 47(2):506 17.doi:10.1016/j.neuropsychologia. 2008.10.007. Epub2008 Oct 15. PMID: 18983862 PubMed - indexed for MEDLINE.

2.Heather L. Dean, Daniel Marti. 2011 Reaction Time Correlations during Eye–Hand Coordination: Behavior and Modeling. Center for Neural Science, New York University, New York, New York 10003, and Copyright 2011 the authors 0270-6474/11/312399-14.

3.James T Eckner, Jeffrey S Kutcher. 2012 Effect of sport-related concussion on clinically measured simple reaction time. Department of Physical Medicine & Rehabilitation, University of Michigan, Ann Arbor, Michigan, USA. Published Online First 11 January 2013. Published online 2012 May 3. Doi: 10.1371/journal.pone.0036407.

4.Jeffrey S. Kutcher, James K. Richardson. 2013 Pilot Evaluation of a Novel Clinical Test of Reaction Time in National Collegiate Athletic Association Division I Football Players This article has been cited by other articles in PMC. PMID: 19034035 PubMed- indexed for MEDLINE

5.David S. Tuch , David H. Salat .(2004) Choice reaction time performance correlates with diffusion anisotropy in white matter pathways supporting visuospatial attention Edited by Nancy J. Kopell, Boston University, Boston, MA, and approved July 8, 2005 (received for review September 30, 2004) Published online 2011 July 4. Doi: 10.2478/v10078-011-0024-y.

6.Pauline, Alexandra 2012 Effects of interactive physical-activity video-game training on physical and cognitive function in older adults. Department of Physiology, University of Lausanne, Lausanne, Switzerland.

4

Academic Sports Scholar | Volume 3 | Issue 4 | April 2014