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Comparative Study of Eye-Hand Coordination between Male and Female players of Hockey

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Abstract
The present investigation was carried out in order to evaluate the eye-hand Coordination between male and female hockey players from age 18-25yrs. The obtained data was analyzed by applying independent t-test at the level of significance 0.05. Results indicate that a significant difference was found among male players and female players at level of significance 0.05.

Keywords: Eye-hand coordination, Project leader, Family members

Introduction
Coordination is the ability of the performer to integrate types of body movements into specific patterns. Good coordination of movements is highly influenced by one's abilities of agility, balance, reaction time, speed and kinaesthetic sense etc. In addition to its importance in normal daily activities, coordination is much more important in especially somewhat complex sports activities, again the role of coordination is different in different games and sports. Coordination is a very important factor in golf swing, pole vault, hitting in hockey, kicking in football, servicing in tennis, badminton, table tennis, pivot activity in discus throw or shot put, performance of many gymnastic skills etc. One must understand the nature of movement with kinaesthetic sense and learn perception of relationships between movements. Kinaesthetic sense is the sense which gives the individual an awareness of his/ her spatial position of body or body parts while moving. Due to this sense, the individual is able to control his/her movement efficiently and effectively which is the basic requirement of coordination of movements. Kinaesthetic receptors of the body are located in muscles, fascia or muscles, tendons and skeletal joints. With the help of these receptors, the individual becomes aware of the position of the body or body part as it moves in space. It is this awareness of body movements that is an important factor in learning a movement and improving coordination. Coordination skill characterized by muscle control, accuracy and steadiness in judging such as variables factors as speed, distance, direction, size, depth etc. Most important type of coordination involving many sports skills is related to the coordination of eyes with hands, feet and head. In many of the sports activities, eyes have to concentrate on a moving ball or similar object while the body or parts of body have to adjust accurately in relation to the moving object for performing hitting, kicking, batting, catching, throwing, fielding servicing etc. Measurement of coordination is most commonly done along with that of reaction time, speed, strength and agility etc. due to a large number of combination testing of coordination, a very large number of coordination test have been described in many literature.

Methodology
The present investigation was carried out in order to evaluate the effect of *eye-hand Coordination between male and female player of hockey. A Total* Ten (N_1=10) male and ten (N_2=10) female National level hockey players were randomly selected for this study from Roop Nagar Hockey Academy, Punjab and they all were accommodated in the Academy Hostel.

Training Protocol
To accomplish the study ball catch and throw test was applied on selected players. The

Subjects were asked to stand two meter away from a smooth wall. On the command of go subjects were instructed to throw a tennis ball with their right hand against the smooth wall and catch the ball with their left hand. This cycle will go for 30sec. After 30sec data were recorded as per the standardized values.

Statistical Procedure: To analyse the data of the comparative study of eye-hand coordination between male and female Hockey Players, independent t-tests were employed. The level of significance was set at 0.05.

Discussion of Findings

The significant mean difference in the Eye-Hand Coordination between male and female is presented in Table-I

Table I

Group	N	Mean	Stdev	SE_M	df	t-value
Male	10	24.10	2.23	.70		
Female	10	11.10	3.24	1.20	18	10.43*

*Significant at.05 level $t_{.05}$ (18) =2.101

From the finding of the above table, the mean (M) and standard deviation (SD) of the eye-hand coordination test for male and female Players were 24.10 ± 2.23 and 11.10 ± 3.24 respectively (N=10) for each group. In addition, the standard error mean of male and female were also found .70 and 1.20 respectively. Hence there is significant difference as the value obtained was 10.43*, whereas tabulated value was 2.101 at 0.05 level of significance.

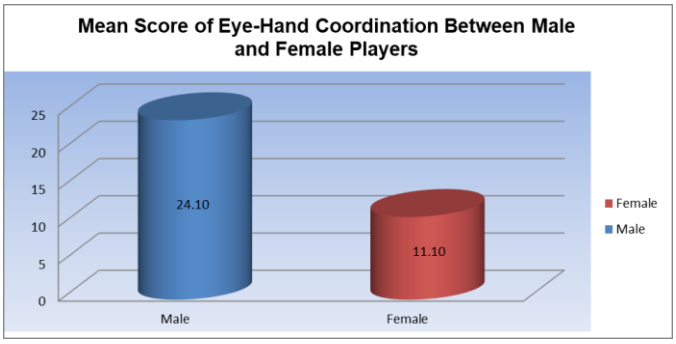

Fig 1: Graphical representation of mean difference in Eye-Hand Coordination between male and female Players

Discussion of Findings

It is evident from the above given table that significant differences were found between male and female player's eye - hand coordination. The probable reason for this could be that male have better spatial coordination, better sense of direction and more precise control of large muscle movement. Women perform better at attention, word and facial memory and social tasks whereas Men perform better at spatial processing, men are better at performing single, focused tasks, this is because they use one side of their brain more than the other. In addition to that, men have better eyesight in bright light or during the day. Men are better at certain motor abilities such as aiming, catching, throwing, hitting, whereas women are better in tasks requiring fine and precise motor abilities, because men have larger body size and muscle mass due to higher production of testosterone, females have 40% less skeletal muscles in the upper half of their body, 33% less in lower region, males have 66% more in upper half and 50% more in lower half. Men have a higher proportion of type 2 fast- twitch fibers making them more solid. Men also have stronger joints, ligaments and tendons. Men have better orientation making them better at visual planning or mapping during a match. Men have a better visuo-spatial ability which helps them in setting up or putting together parts of automobiles, or other complex structures.

References

1. Gogoi Deep & Pant Gaurav. A Comparative Study on Eye-Hand Coordination Ability between Attackers and Blockers in Volleyball, International Journal of Research and Analytical Reviews 2017;4(2):52-55.
2. Kansal K Davinder. A Practical Approach to Test Measurement and Evaluation, SSS Publication, New Delhi. 2012.
3. Noor Mohammad. Comparative Study of Eye-Hand Coordination among Volleyball Playing and Non - Volleyball Playing University Students. Saudi Journal of Sports Medicine 2021;20(2):64-69.
4. Pathare DS. A Comparative study of eye hand Coordination among games Players. International Journal of Physical education, Sports and Health 2016;3(2):382-383.
5. Singh Santosh L. Effect of Training Load on Selected Physical and Physiological Variables of Soccer Players of Manipur. Published PhD. Thesis, Manipur University, Manipur 2015.
6. Singh H. Science of Sports Training. DVS Publication 1997.