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AN EXAMINATION OF AGILITY AMONG FOOTBALL, HOCKEY AND CRICKET INTERUNIVERSITY PLAYERS

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Abstract

Sheppard & Young (2006) offered a categorical definition of agility: 'rapid whole-body movement with change of velocity or direction in response to a stimulus'. In the context of team sports, agility therefore comprises not only change of direction abilities but also perception and decision-making. Agility in the context of team sports is multifactorial **(Gamble, 2011)**. Keeping this fact in mind researcher has made all efforts to find out the difference in agility factor among Cricket, Football, Hockey interuniversity players.

The study was delimited to the female interuniversity players of Dr. R.M.L.Avadh University, Ayodhya, Uttar Pradesh, India. Their age ranged from 18 to 25 years. It is hypothesized that there will not be any significant difference in agility factor among players selected for the study. The study was designed to compare the agility factor among Cricket, Football, Hockey interuniversity players of Dr. R.M.L.Avadh University, Ayodhya, Uttar Pradesh, India. The 16 players of each team were selected made the sample size of 48 for this study. Shuttle run of 10x4Mtr. was used for getting data on agility (speed, body control and the ability to change direction) of the subjects. The time (in sec.) taken in completing this exercise were recorded as their score in this test. The study revealed that significant differences exist between cricket team players and hockey team player & hockey team player and football team players were found to be significantly related whereas cricket team players and football team players was not found to be significantly related. It is also evident from the data that the agility level was highest for cricket team players fallowed by football team players and hockey team player.

Key words:- Cricket, Football, Hockey and interuniversity players.

INTRODUCTION

Sports performance is determined by many factors and the interrelationship among them. Improvement in any one factor leads to change in level of other factors. E.g. It has been established that improvement in leg strength leads to improvement in speed performances, whereas speed and co-ordination cause change in agility of the sports persons. Agility is the ability to change directions quickly to control body movements the demand of this quality is required by the players of Cricket, Football,

Hockey and many other games for, dodging, attack, placing, running, blocking and requires agility for showing any performance at all. Agility (sometimes called hand-eye coordination) is the coordinated functioning of muscles or groups of muscles in the execution of a complex task. Agility is one of the main fitness components, important for success in many sports, such as in the team sports of cricket, football and hockey, as well as in individual sports. Agility is also influenced by body balance, coordination, the position of the centre of gravity, as well as running speed and skill. Agility can be improved with agility training drills but also by improving the specific individual fitness elements of speed, balance, power and co-ordination. When testing agility, one has to take into consideration sudden changes of direction of movement, accelerations and fast stops. This diverse character of movement, which is employed above all in sport games and martial arts, can suggest that other running mechanisms than in typical track sprinters, are employed **(Sayers, 2000). Sheppard & Young (2006)** offered a categorical definition of agility: 'rapid whole-body movement with change of velocity or direction in response to a stimulus'. In the context of team sports, agility therefore comprises not only change of direction abilities but also perception and decision-making. In much the same way as speed expression, agility in the context of team sports is multifactorial **(Gamble, 2011)**. Keeping this fact in mind researcher has made all efforts to find out the difference in agility factor among Cricket, Football, Hockey interuniversity players.

REVIEW OF RELATED LITERATURE

Robson, Uppal and Bose (1981) conducted a study to determine the selected physical fitness components of boys and girls at different stages of elementary school level. 20 boys and 20 girls were selected at random basis from each grade from one through five. Their ranged from five to eleven years. The components tested were speed, shoulder strength, explosive power and agility. It was found from the analysis of the data that boys had more shoulder strength than girls in all grades in standing broad jump there was no significance difference in performance between boys and girls of grade one and two. Boys of grades three and four were significantly superior to girl's grade three and found in standing broad jump. It was also found that boys of grade five were significantly superior to the girls of the same grade in 50 meter run and shuttle run.

DELIMITATIONS

This study was delimited to Cricket, Football, Hockey game only. The study was further delimited to the female interuniversity players of Dr. R.M.L.Avadh University, Ayodhya, Uttar Pradesh, India. Their age ranged from 18 to 25 years.

LIMITATIONS

The differences that exist among the subjects due to varied social, cultural, economic, religious factors and due to restricted permission and shortage of time, the best time to test the students could not be followed. The timings of testing the subjects were mornings and afternoon but not in a very cold and humid condition, were considered as limitation of the study.

HYPOTHESIS

It is hypothesized that there will not be any significant difference in agility factor among Cricket, Football, Hockey interuniversity players selected for the study.

SIGNIFICANCE OF THE STUDY

The physical educators and coaches will be able to utilize agility variable as predicting factor for the training means to bring about desired changes in players. It may also be helpful in selecting beginners in Cricket, Football, Hockey based on agility as predicting factors.

SELECTION OF SUBJECTS

The study was designed to compare the agility factor among Cricket, Football, Hockey interuniversity players of Dr. R.M.L.Avadh University, Ayodhya, Uttar Pradesh, India. The 16 players of each team were selected made the sample size of 48 for this study.

SELECTION AND PROCEDURE OF TEST

Shuttle run of 10 x 4Mtr. run was used for getting data on agility (speed, body control and the ability to change direction) of the subjects. The time (in sec.) taken in completing this exercise were recorded as their score in this test. This test measured agility while running between two lines 10m apart. Two marked line with the distance of 10mt over a plane and non-slippery ground, stop watch, marble dust and two wooden blocks of 2x2x4 inches were used. In this test, subjects were asked to stand on the starting line, the two blocks are placed on the line opposite the line they are going to start at. On the signal "ready", the participant places their front foot behind the starting line. On the signal, "go!" the participant sprints to the opposite line picks up a block of wood, runs back and places it on or beyond the starting line. Then turning without a rest, they run back to retrieve the second block and carry it back across the finish line with minimum possible time. Two trials are performed. The time was recorded to complete the test in seconds to the nearest one decimal place. Best time in two trial was recorded.

STATISTICAL PROCEDURE

One way analysis of variance (ANOVA) and least significant difference (L.S.D) test was used to compare the groups and for testing significance of the values at 0.05 levels have been fixed.

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RESULTS

To test the hypothesis, all the recorded data of agility were computed in table-01, and differences between means (L.S.D. test) was applied and presented in table-02.

Table -1

ANOVA results of Agility

Source of Variation	Sum of Squares	Degree of Freedom	Mean Squares	F
Between	14.5409	2	7.2705	7.978*
Error	41.0089	45	0.9113	
Total	55.5499	47		

***Significant at 0.05 level of confidence (3.19)**

An observation of the table-1 reveals that obtained 'F' value is 7.978, which is statically significant as it is more than tabulated value of 3.19. Thus the hypothesis has been rejected. In order to locate the pairs where significant differences exist, L.S.D test has been applied. The results are presented in table-02.

Table-02.

L.S.D analysis of Agility

Means of Different Teams			**Mean Difference**	**CD at 0.05 level**
Cricket Team	**Hockey team**	**Football Team**		
10.3481	11.68		1.3319	0.5668*
10.3481		10.8331	0.485	0.5668
	11.68	10.8331	0.8469	0.5668*

*Significant at 0.05 level of confidence

The comparisons of the mean scores of the interuniversity players of Cricket, Football, Hockey are also presented graphically in Figure - 01.

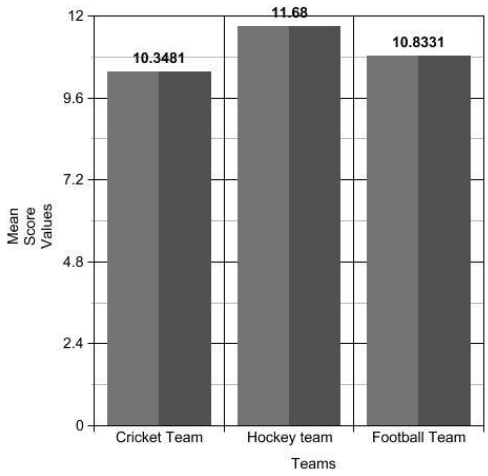

Figure-01

DISCUSSION

The hypothesis set for this study is accepted as the table - 01 reveals that obtained 'F' value is 7.978, which is statistically significant. In table-02, The study revealed that significant differences exist between cricket team players and hockey team player & hockey team player and football team players whereas cricket team players and football team players was not found to be significantly related. It is also evident from the data that the agility level was highest for cricket team players fallowed by football team players and hockey team player. The reason may be that cricket team players mostly practice for running between the wicket and football player are used to of zig zag movement.

SUGGESTIONS

Agility ensures that your body and sports equipment are in the right position to take the next action effectively. This study has some suggestions:

1. The administrator, teachers and coaches of the college/university must pay attention to the agility improvement of their players.
2. For building the confidence in the players, the coaches must develop the speed and agility level to their players
3. Samples selected may be of more numbers that can be used to repeat the present study.
4. The sample for the present study includes cricket, hockey and football players. Same study may be planned for others sports.
5. Others factor of motor fitness may also be taken to make the similar type of study.

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