

STAR

Research Journal

Available online at www.starresearchjournal.com (Star International Journal)**PHYSICAL EDUCATION**

Star. Phy. Edn 02 (2015)



COMPARATIVE ANALYSIS OF SKILL PERFORMANCE VARIABLES AMONG THE SOUTHERN STATE JUNIOR WOMEN HOCKEY PLAYER

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Abstract

The purpose of the study was to analyse the skill performance variables among the southern state junior women hockey players. To achieve the purpose of the study one hundred Junior State Women Hockey players from five Southern State who have participated in the Junior National Hockey Championship for women held during the year 2012-13 and 2013-2014. The five States were Karnataka, Tamil Nadu, Kerala, Andra Pradesh and Pondicherry. The age of subjects were ranged from 16 to 18 years. Dribbling and hitting were selected as performance variables as they may have direct relation to the performance of hockey players in competitive situation. The collected data was statistically analysed by using analysis of variance. The scheffe's test was used as a post hoc test to determine which of the paired mean differ significantly. The result reveals that there was a significant difference between the five states on the following variables namely dribbling and hitting.

Key Words: Analysis, Women, Hockey, Skill Performance.

Introduction

The Field Hockey is one of the most popular games in India. The origin of Indian Hockey dates back to the days of the imperial rule. It was introduced in India by the British (Hendricks, 1988). India has won many laurels at the international level matches. India had bagged eight gold, one silver and two bronze medals in the Olympics Games until 1980. India is the cradle of World Hockey. Hockey is a game in which players attempt to score goal by hitting, pushing or flicking the ball with hockey sticks into the opposing team's goal (Miroy, 1986). The performance of Indian men's hockey team has been highly depended on the success of its penalty corner conversion.

Skill is the outcome of message sent by the sensory organs to the brain which in turn makes the concerned muscles act in a certain way to perform a complicated action in the desired manner. In general, a skill is learnt by repeatedly making attempts at movements in such a way that particular muscles are forced to act in certain directions until the requisite skill is acquired. A hockey player therefore must understand that to get good results he should first grasp the intricacies involved in a skill. He must make up in his mind a clear picture of what he is going to attempt. If his mind grasp the whole movement involved in a skill his tasks in acquiring that skill will become easier.

In hockey, the term skill is applied to a pattern of movements which a player is able to make with his stick and ball in a manner that corresponds to rules and is effective in its objective. Hockey is played at a fast pace and a player must use his skills in a manner which corresponds to the tempo of the game.

Material & Methods

The purpose of the study was to analyse the skill performance variables among the southern state junior women hockey players. To achieve the purpose of the study one hundred Junior State Women Hockey players from five Southern State who have participated in the Junior National Hockey Championship for women held during the year 2012-13 and 2013-2014. The five States were Karnataka, Tamil Nadu, Kerala, Andra Pradesh and Pondicherry. The age of subjects were ranged from 16 to 18 years. Dribbling and hitting were selected as performance variables as they may have direct relation to the performance of hockey players in competitive situation. The collected data was statistically analysed by using analysis of variance. The scheffe's test was used as a post hoc test to determine which of the paired mean differ significantly.

Results & Discussion

TABLE – I
ONE WAY ANALYSIS OF VARIANCE FOR DRIBBLING OF THE SOUTHERN STATE JUNIOR WOMEN HOCKEY PLAYERS

Source of variance	df	Sum of Squares	Mean Squares	F-Ratio
Between the groups	4	328.089	82.022	142.307*
Within the groups	95	54.755	0.576	

Significant at 0.05 level $F_{0.05}(4,95) = 2.47$

0.05 level. Hence there exists significant difference.

The statistical analysis of data from Table VI clearly shows that the obtained F ratio 142.307 was greater than the table value 2.247 significant at

TABLE – II
POST HOC TEST ANALYSIS OF VARIANCE FOR DRIBBLING OF THE STATE JUNIOR WOMEN HOCKEY PLAYERS

Karnataka	Tamil Nadu	Kerala	Andhra pradesh	Pondicherry	Mean difference	CI
19.39	19.88	---	---	---	0.49	0.52
19.39	---	22.03	---	---	2.64*	
19.39	---	---	23.40	---	4.01*	
19.39	---	---	---	23.88	4.49*	
---	19.88	22.03	---	---	2.15*	
---	19.88	---	23.40	---	3.52*	
---	19.88	---	---	23.88	4.00*	
---	---	22.03	23.40	---	1.37*	
---	---	22.03	---	23.88	1.85*	
---	---	---	23.40	23.88	0.48	

As given in the Table II the mean difference obtained from scheffe's post hoc test was 2.64 between Karnataka and Kerala, 4.01 between Karnataka and Andhra Pradesh and 4.49 between Karnataka and Pondicherry, 2.15 between Tamilnadu and Kerala, 3.52 between Tamilnadu and Andhra Pradesh, 4.00 between Tamilnadu and Pondicherry, 1.37 between Kerala and Andhra

Pradesh, 1.85 between Kerala and Pondicherry were greater than the CI value of 0.52. Hence there exists significant difference. It was found out from the analysis that the performance variable dribbling ability of the Karnataka state junior women Hockey players was better than the other southern state junior women hockey players.

TABLE – III
ONE WAY ANALYSIS OF VARIANCE FOR HITTING OF THE SOUTHERN STATE JUNIOR WOMEN HOCKEY PLAYERS

Source of variance	df	Sum of Squares	Mean Squares	F-Ratio
Between the groups	4	47.300	11.825	19.138*
Within the groups	95	58.700	0.618	

Significant at 0.05 level $F_{0.05}(4,95) = 2.47$

0.05 level. Hence there exists significant difference.

The statistical analysis of data from Table VI clearly shows that the obtained F ratio 19.138 was greater than the table value 2.247 significant at

TABLE – IV
POST HOC TEST ANALYSIS OF VARIANCE FOR HITTING OF THE STATE JUNIOR WOMEN HOCKEY PLAYERS

Karnataka	Tamil Nadu	Kerala	Andhra pradesh	Pondicherry	Mean difference	CI
8	7.85	---	---	---	0.15	0.54
8	---	6.90	---	---	1.10*	
8	---	---	7.15	---	0.85*	
8	---	---	---	6.10	1.90*	

---	7.85	6.90	---	---	0.95*
---	7.85	---	7.15	---	0.70*
---	7.85	---	---	6.10	1.75*
---	---	6.90	7.15	---	0.25
---	---	6.90	---	6.10	0.80*
---	---	---	7.15	6.10	1.05*

As given in the Table IV the mean difference obtained from scheffe's post hoc test was 0.150 between Karnataka and Tamil Nadu, 1.10 between Karnataka and Kerala, 0.85 between Karnataka and Andhra Pradesh, 1.90 between Karnataka and Pondicherry, 0.95 between Tamilnadu and Kerala, 0.70 between Tamilnadu and Andhra Pradesh, 1.75 between Tamilnadu and

Pondicherry, 0.80 between Kerala and Pondicherry, 1.05 between Andhra Pradesh and Pondicherry were greater than the CI value of 0.54. Hence there exists significant difference. It was found out from the analysis that the hitting of the Karnataka state junior women Hockey players was better than the other southern state junior women hockey players.

FIGURE I
BAR DIAGRAM SHOWING THE DRIBBLING OF THE SOUTHERN STATE JUNIOR WOMEN HOCKEY PLAYERS

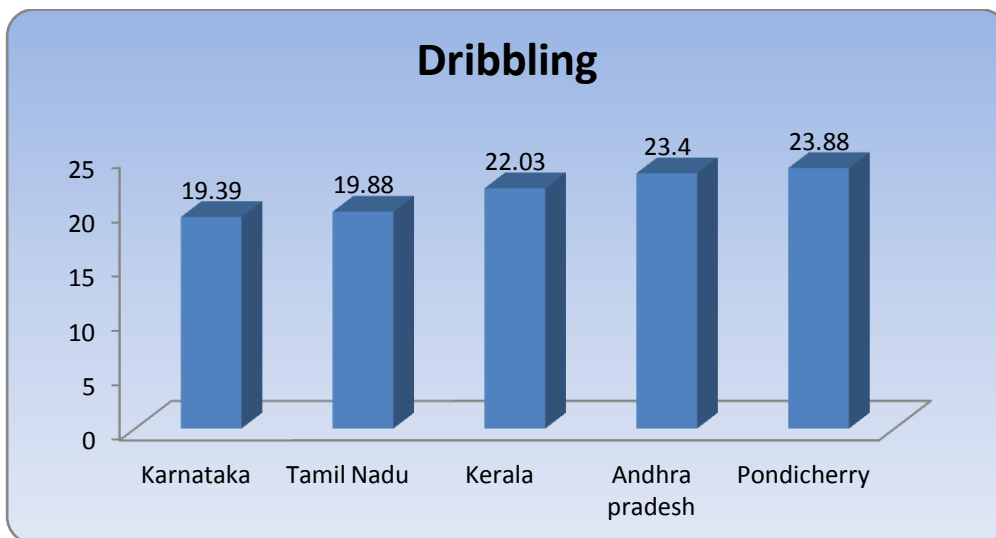
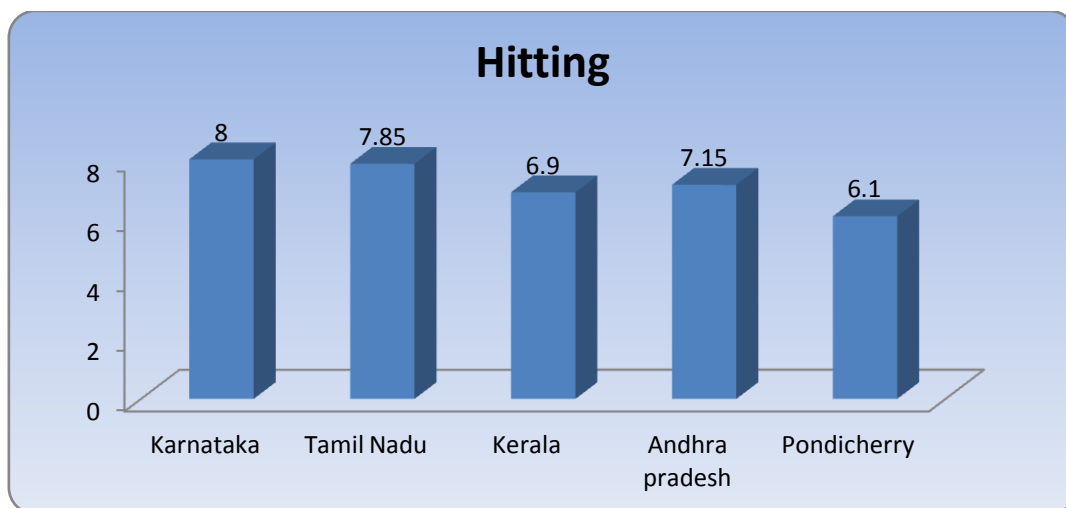


FIGURE II
BAR DIAGRAM SHOWING THE HITTING OF THE SOUTHERN STATE JUNIOR WOMEN HOCKEY PLAYERS



Discussion on Findings

From the above statistical analysis it was found out that the dribbling performance ability of the Karnataka state junior women Hockey players was better than the other state junior women hockey players of southern state. During the training session the Karnataka state women hockey players normally take practice in the synthetic surface because the training facilities are more when compare to other southern junior women states. As they are experienced in the synthetic surface they are able to dribbling the ball better than the other state junior women hockey players. It is clear that the regular and continuous training on the specific skills brings out enormous changed in the dribbling performance because the training improves the technical abilities. Because of the above said reasons the Karnataka state junior women Hockey players are found better in the dribbling abilities than the other southern state junior women hockey players. The hitting performance of the Karnataka state junior women Hockey players was better than the other state junior women hockey players of southern state. During the training session the Karnataka state women hockey players normally take practice in the synthetic surface because the training facilities are more when compare to other southern junior women states. As they are experienced in the synthetic surface they are able to run faster than the other state junior women hockey players. It is clear that the regular and continuous skill training brings out enormous changes in the hitting performance because the specific training improves the technical abilities. Because of the above said reasons the Karnataka state junior women Hockey players were found better in hitting performance than the other southern state junior women hockey players.

Conclusions

In the light of the study undertaken with certain limitations imposed by the experimental conditions, the following conclusion was drawn.

1. It was found out from the analysis that the performance variable dribbling ability of the Karnataka state junior women Hockey players was better than the other southern state junior women hockey players.
2. It was found out from the analysis that the hitting of the Karnataka state junior women Hockey players was better than the other southern state junior women hockey players.

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