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IMPACT OF GAME-SPECIFIC TRAINING ON SKILL PERFORMANCE VARIABLES OF FIELD HOCKEY PLAYERS

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Abstract:

This research examined the impact of a six-week training program tailored to game-specific training on specific skill performance variables of field hockey players. Thirty male participants, aged 18 to 23, were selected and randomly divided into two groups: an experimental group (n=15) and a control group (n=15). The experimental group engaged in game-specific training sessions three times weekly, while the control group adhered to their standard training regimen. Skills such as dribbling and pushing were evaluated both before and after the intervention. A dependent t-test was employed to compare the pre- and post-test results of both groups, with a significance threshold of 0.05 and 14 degrees of freedom. The analysis indicated statistically significant differences between the groups, with the experimental group showing marked progress in the targeted skill performance.

Key Words: Hockey, Field Hockey, Game Specific Training, Dribbling, Hitting, Suresh Kumar Hockey Test.

Introduction:

Field hockey is a dynamic and highly skilled sport that requires exceptional technical ability, strategic thinking, and physical conditioning. Players are tasked with mastering intricate techniques such as dribbling, passing, shooting, and tackling, often under intense time constraints and within the fluid context of a match. Training methodologies are pivotal in honing these abilities, with game-specific training emerging as a particularly effective approach for replicating the demands of actual competition. Game-specific training combines technical, tactical, and physical elements into practice sessions that mirror real-game environments. Unlike conventional drills that focus on isolated skills, this method prioritizes situational learning, decision-making, and team synergy. Rooted in sports pedagogy, this approach underscores the value of contextual learning for skill development and performance improvement.

The influence of game-specific training on critical performance metrics, including passing precision, ball handling, shooting accuracy, and defensive techniques, has garnered increasing attention in the field of sports science. Studies indicate that this training not only refines technical execution but also bolsters cognitive abilities such as situational awareness and decision-making under duress. This research seeks to assess the impact of game-specific training on essential skill performance variables among field hockey players. By examining advancements in performance indicators, the study aims to shed light on the efficacy of game-specific training as a means of fostering comprehensive player growth. The outcomes may inform evidence-based coaching strategies and support the refinement of training regimens for field hockey athletes across different skill levels.

Methodology:

Selection of Subjects:

Thirty field hockey players, aged 18-23 years, were selected from Ramakrishna Mission Vidyalaya Maruthi College of Physical Education. Participants were chosen based on their eligibility for the study and underwent preliminary skill performance testing. They were then randomly assigned into two groups: an experimental group (n=15) and a control group (n=15).

Criterion Measures:

1	Dribbling	Suresh Kumar Hockey Test
2	Hitting	Suresh Kumar Hockey Test

Research Design:

The study employed a pre-test and post-test randomized group design. The experimental group participated in a six-week game-specific training program, conducted three times per week. The control group continued with their regular training routine without any additional intervention. Skill performance variables were measured both before (pre-test) and after (post-test) the six-week intervention for both groups.

Statistical Techniques:

A dependent t-test was applied to compare the pre-test and post-test mean scores within each group (experimental and control) to assess the effect of the training program. The level of significance for statistical testing was set at $p < 0.05$, indicating that differences with a probability value below 0.05 would be considered statistically significant.

Results:

Table 1: Computation of 't' Test of Dribbling on Experimental and Control Group of Field Hockey Players

Variable	Group	Test	Mean	S.D	D.M	σ DM	't'
Dribbling	Experimental Group	Pre Test	7.49	0.71	0.71	0.22	12.09*
		Post Test	6.79	0.69			
	Control Group	Pre Test	7.25	0.73	0.01	0.44	1.21
		Post Test	7.26	0.71			

* Significant at 0.05 level, Table value for df 14 was 2.14

Table 1 presents the mean and standard deviation values for dribbling performance in both the experimental and control groups of field hockey players. The experimental group demonstrated pre-test and post-test mean scores of 7.49 and 6.79, respectively, with standard deviations of 0.71 and 0.69. The calculated 't' value of 12.09 significant the table value of 2.14 at 14 degrees of freedom. On the other hand, the control group recorded mean scores of 7.25 and 7.26, with standard deviations of 0.73 and 0.71, and a 't' value of 1.21, which was below the table value of 2.14. These findings indicate that the experimental group achieved a notable improvement in dribbling, likely due to the implementation of game-specific training for hockey players.

Figure 1: The Bar Diagram Shows that the Pre and Post Test Means of Experimental and Control Groups on Skill Performance of Inter-Collegiate Field Hockey Players

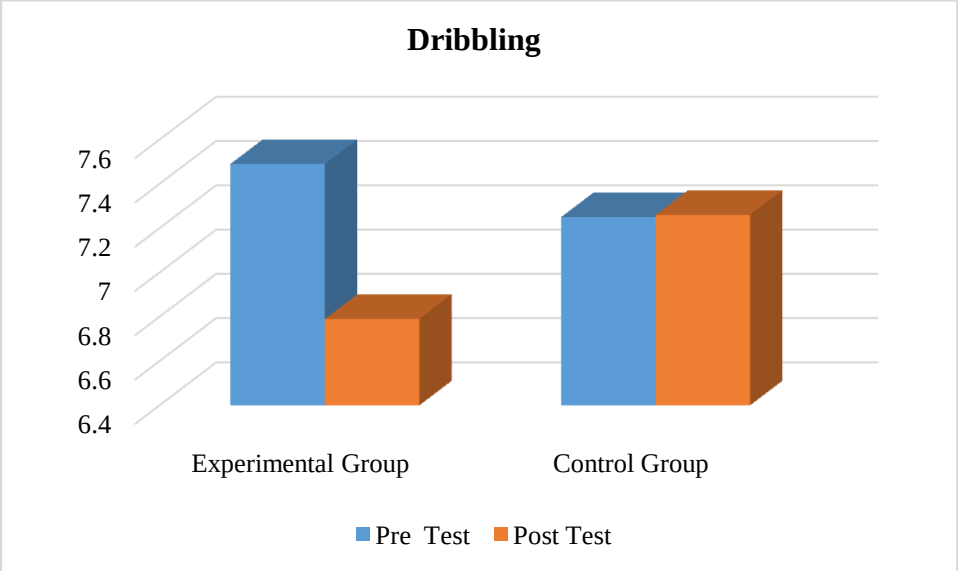
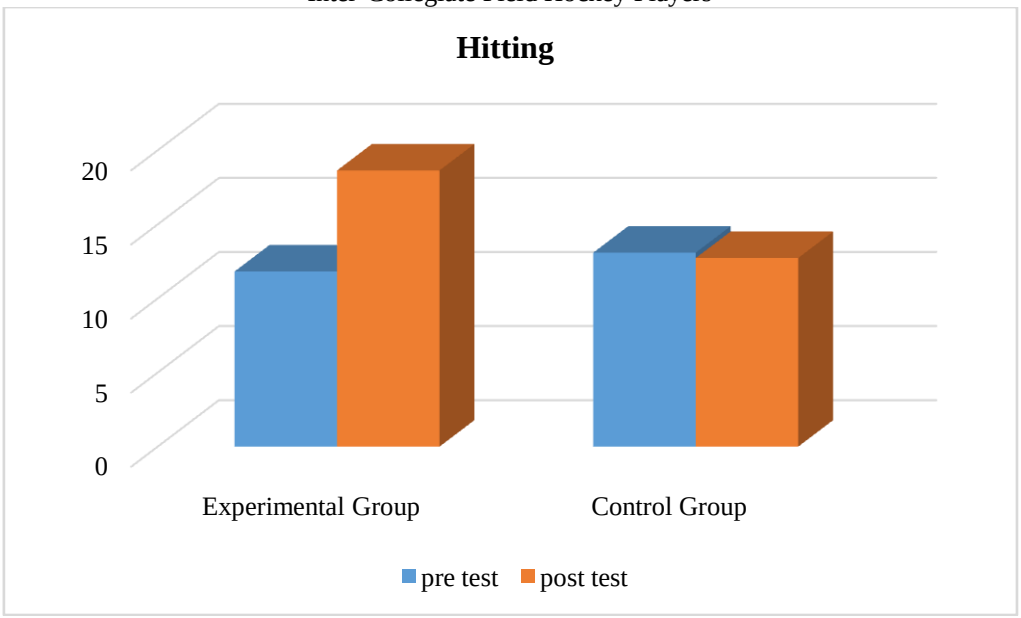


Table 2: Computation of 't' Test of Hitting on Experimental and Control Group of Field Hockey Play

Variable	Group	Test	Mean	S.D	D.M	σ DM	't'
Hitting	Experimental Group	Pre Test	11.82	4.62	6.82	3.15	7.16*
		Post Test	18.64	4.36			
	Control Group	Pre Test	13.09	2.12	0.36	0.29	1.30
		Post Test	12.73	2.10			

Table 2 presents the mean and standard deviation values for hitting performance in both the experimental and control groups of field hockey players. The experimental group demonstrated pre-test and post-test mean scores of 11.82 and 18.64, respectively, with standard deviations of 4.62 and 4.36. The calculated 't' value of 7.16 significant the table value of 2.14 at 14 degrees of freedom. On the other hand, the control group recorded mean scores of 13.09 and 12.73, with standard deviations of 2.12 and 2.10, and a 't' value of 1.30, which was below the critical value of 2.14. These findings indicate that the experimental group achieved a notable improvement in hitting, likely due to the implementation of game-specific training for hockey players.

Figure 2: The Bar Diagram Shows that the Pre and Post Test Means of Experimental and Control Groups on Skill Performance of Inter-Collegiate Field Hockey Players



Conclusions:

The study results show that game-specific training significantly improved dribbling and hitting skills in field hockey players. The experimental group showed notable progress, while the control group had minimal changes. These findings suggest that game-specific training is more effective than regular training in enhancing skill performance.

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