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Comparative Study of Football and Hockey Players Control and Endurance Of The Lateral Core Muscle Stability

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Abstract

The promotion of lifetime participation in physical education is a major goal of physical education and to be continuously involved with the process we should have required physical strength and physical fitness. The purpose of research work was to study the control and endurance of the lateral core muscles of football and hockey players to complete this task a total of 40 (n = 40) football and hockey players were selected purposively from different training institute of Aurangabad, age ranged between 18 to 30. Methodology – the side ramp test was used to measure the control and endurance of the lateral core group muscles of football and hockey by the research scholar to study control and endurance of the lateral core group muscles. Data was collected individually by performing the test. Mean, Standard and Z test was applied for data analysis and interpretation. Conclusion according to statistical measures. Mean Score (S.Ds.) football players was 111.6 (21.21) seconds, mean score (S.Ds.) of hockey players was 140 (35.71) seconds. The level of significance was 0.29 hence, there is significant difference between football and hockey players with respect to control and endurance of the lateral core muscle stability.

Keywords – Control, Endurance, Lateral Core Muscle, Stability

I. Introduction

Sports are an arts as well as science. As the doctors say that human body is the most complicated machine in the world. Dealing with this machine is highly critical and complicated. A comparative study of football and hockey players control and endurance of the lateral core muscle stabilizing undertaken as the research topic for the study. Football is a sport that requires strength and power in nearly every muscle throughout the body. Both lower- and upper-body muscles are involved in activities like running, jumping, blocking, catching and throwing. In addition, your core muscles have to continuously work to keep your spine stable and perform twisting movements that occur when throwing or going up to catch a ball. Hockey also require strength, agility, bending, twisting and jumping movements of the body

II. Objectives of the study

- to study the control and endurance of lateral core group muscles of football players
- to study the control and endurance of lateral core group muscles of hockey players

III. Hypothesis

- There is no significance difference in the control and endurance of lateral core muscles between football and hockey players
- There is significance difference in the control and endurance of lateral core muscles between football and hockey players

IV. Procedure and methodology

To achieve the purpose of the study 40 (N=40) 20 football and 20 hockey players were purposively selected from different government and private training institutions of Aurangabad. The subjects were ranged from 18 to 30 years. For the present study to test the control and endurance of lateral core muscles of football and hockey players Side Ramp test was used **Purpose:** The side ramp test measures the control and endurance of the lateral core stabilizing muscles. It requires flat clean surface, [stopwatch](#), recording sheets, and pen.

Procedure - the aim of this test is to hold an elevated position for as long as long as possible. The subject lays on their right side, the upper body supported off the ground by the right elbow and Forearm. The legs are straight, with the left foot (top) of you front of your right foot. The hip is lifted off the floor so that the elbow and feet support the body, creating a straight line from head to toe. The left hand is placed on the supporting shoulder. As soon as the subject is in the correct position, the stopwatch is started. This test is over when the subject is unable to hold the back straight and the hip is lowered. After five minutes rest, the other side is tested **Scoring** - the score is the total time elapsed for each side. Compare the performance on the two sides. The table below indicates guidelines rating scores for both males and females.

V. Results and Discussion

The appropriate statistical techniques were employed. The collected data were statistical measure like mean, and standard deviation test was applied. The level significance was $p > 0.05$ the results have been presented in the following tables.

Table no. 1 Showing the morphological characteristic of Football Players

	Mean	S.D
Height (cm)	170.2	63.5
Weight (kg)	3.36	6.21

Mean Score (S.Ds.) height of football players was 170.2 (63.5) cm, mean score (S.Ds.) weight was 3.36 (6.21) kgs.

Graph no. 1 showing the morphological characteristic of football players

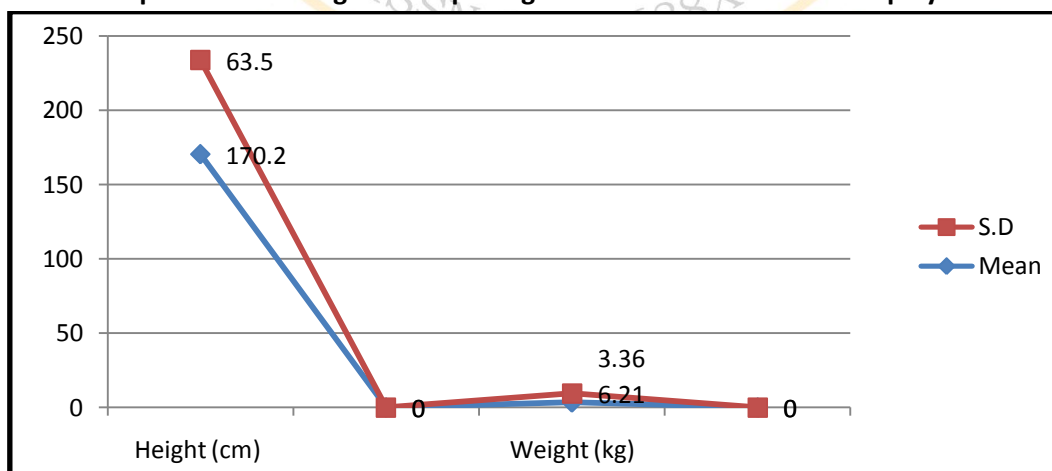


Table no. 2 showing the morphological characteristic of Hockey Players

	Mean	S.D
Height (cm)	171.1	10.68
Weight (kg)	63.1	6.63

Mean Score (S.Ds.) height of hockey players was 171.1 (10.68) cm, mean score (S.Ds.) weight was 63.1 (6.63) kgs.

Graph no. 2 showing the morphological characteristic of Hockey Players

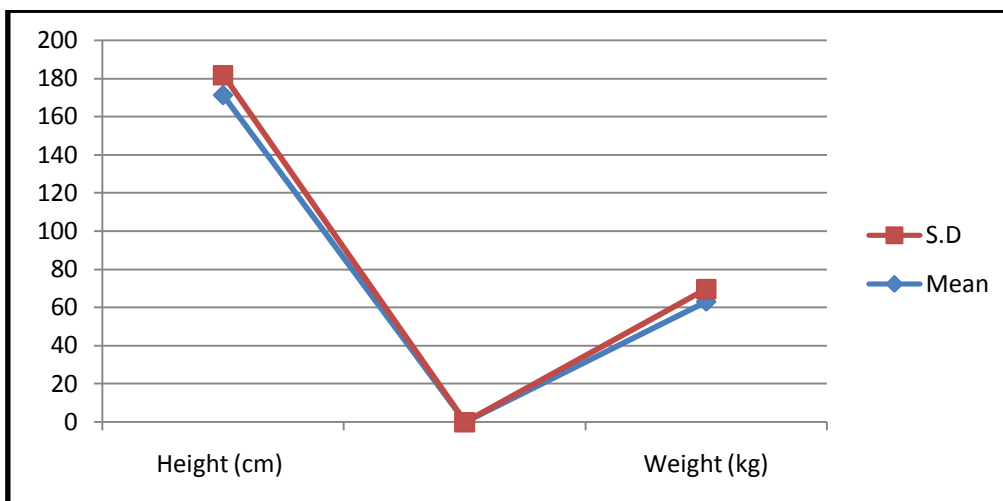


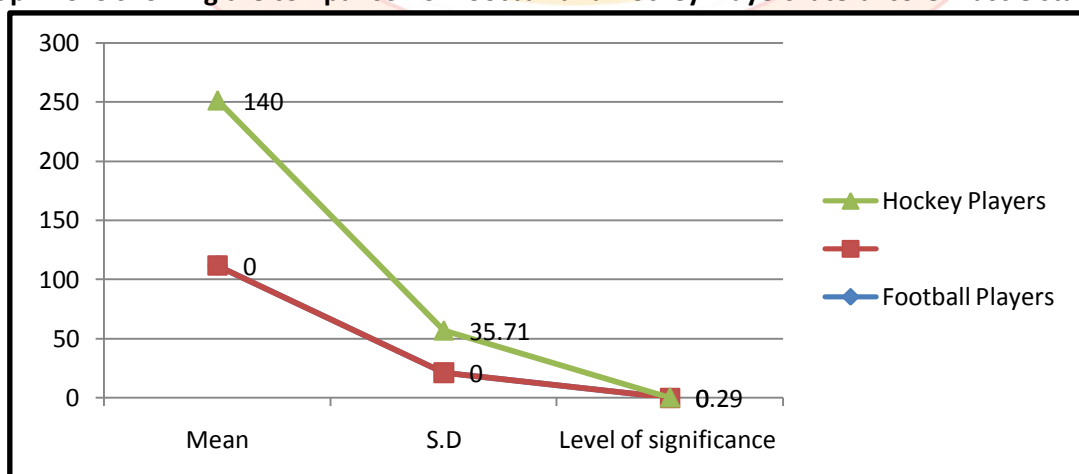
Table no. 3 showing the comparison of Football and Hockey Players lateral core muscle stability

	Mean	S.D	Level of significance
Football Players	111.6	21.21	0.29
Hockey Players	140	35.71	

Z test was applied $p < 0.05$

Mean Score (S.Ds.) football players was 111.6 (21.21) seconds, mean score (S.Ds.) of hockey players was 140 (35.71) seconds. The level of significance was 0.29 hence, there is significant difference.

Graph no. 3 showing the comparison of Football and Hockey Players lateral core muscle stability



Conclusion

- There is no significance difference in the control and endurance of lateral core muscles between football and hockey players. **Thus the hypothesis rejected.**
- There is significance difference in the control and endurance of lateral core muscles between football and hockey players. **Thus the Hypothesis accepted.**

Acknowledgement

We are great indebted to the coaches and trainers of various football and hockey training institutes of Aurangabad for their much needed guidance for the successful completion of this Research paper. We also thank to Dr. Kashif for guiding me to put up the data statistically in the required manner according to the research work. We also thank the football and hockey players and other members of the training institute for participating in this Research study.

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