

International Multidisciplinary
Research Journal

*Indian Streams
Research Journal*

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RNI MAHMUL/2011/38595

ISSN No.2230-7850

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A COMPARATIVE STUDY ON BMI AND HANDGRIP STRENGTH BETWEEN HANDBALL AND HOCKEY STATE LEVEL MALE PLAYERS OF KARNATAKA STATE



Chethan Ram P

INTRODUCTION

Physiological systems are highly adoptable to exercise. Each task has its major physiological components and fitness for the task requires effective functioning of appropriate systems. In order to acquire the ability to achieve high level performance, numerous adaptive change of the structure and function of the body are required (Mathew and Fox, 1971). Not only to develop a relatively efficient leverage system for mobility of the various physiological systems but certain physical modifications are also necessary so that exercise capacity can be increased. UgurCavlak (2007) detected the presence of a significant negative correlation between thigh skin fold measurement

ABSTRACT

The purpose of this study was to investigate and compare the analysis of BMI and Handgrip strength of Handball and Hockey state level male players of Karnataka state. To achieve the purpose of the study, the fifty (n=50) players were randomly selected as a subjects, out of which twenty five (n=25) from Handball and twenty five (n=25) from Hockey discipline who were participated in the state level competition in 2013-14. The age of all subjects ranged from 17 to 21 years.

The following variables were selected the BMI was measured by administering test namely BMI test. Handgrip strength was measured by handgrip dynamometer and administering test namely Handgrip strength test to assess Hand grip. T test was applied to determine the significance of difference and direction of difference in mean score of variables between Handball and Hockey state level male players. The level of significance was set at 0.05.

The results revealed that there was a significant difference in BMI and Handgrip strength between Handball and Hockey state level male players of Karnataka.

KEYWORDS : BMI (Body Mass Index), Handgrip strength

Short Profile

Chethan Ram P is work as Physical Education Teacher at Euro School in North Campus, Bangalore. He Has Completed B.Sc., B.P. Ed., M.P. Ed., NET. and KSET.

and trunk muscle endurance tests, in men and women, and concluded that there is a positive significant relationship between hand grip strength, curl-up, and horizontal side bridge tests.

The main purpose of the present study was to investigate and compare the analysis of BMI and Handgrip strength of Handball and Hockey state level male players of Karnataka state.

OBJECTIVE OF THE STUDY

To find out the significant differences between Handball and Hockey state level male players of Karnataka state on the variables BMI (Body Mass Index) and Handgrip strength.

METHODOLOGY

To obtain data for

Physical Education Teacher, Euro School, North Campus, Bangalore.

this study, fifty (n=50) subjects were selected out of which twenty five (n=25) from Handball and twenty five (n=25) from Hockey discipline and who were representing state level competitions. The age of all subjects ranged from 21 to 28 years. The following variables were selected the BMI was measured by administering test namely BMI test. Handgrip strength was measured by handgrip dynamometer and administering test namely Handgrip strength test to assess Hand grip. T test was applied to determine the significance of difference and direction of difference in mean score of variables between Handball and Hockey state level male players of Karnataka state. The level of significance was set at 0.05.

Statistical Technique

To identify the difference between Handball and Hockey state level male players of Karnataka state, statistical technique T test was applied. The level of significance was set at 0.05.

RESULT AND DISCUSSION

The data collected to achieve the objective of the study was statistically analysed and results are presented in the following tables.

Table 1 shows the mean value, standard deviation and t value of Body Mass Index (BMI) of Handball and Hockey state level male players of Karnataka state

Players	Sample Size	Mean	Std. Deviation	't' value
Hockey	25	21.182	1.61101	-1.179
Handball	25	21.880	2.48523	

*Significant at 0.05 level.

It is clear from the above table that calculated 't' value -1.179 is lesser than the table value so it is significant difference between Handball and Hockey state level male players on Body mass index.

In this component the Handball male

players have shown more mean value then the Hockey male players.

It is clear that BMI of Handball male players are more than the Hockey male players.

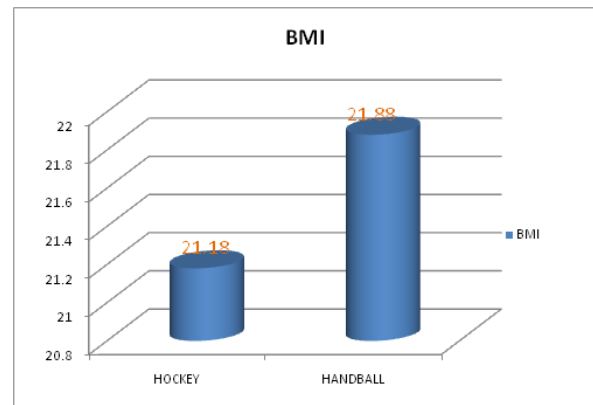


Fig 1: Graphical representation of the comparison of mean value of body mass index between Handball and Hockey state level male players of Karnataka

Table 2 shows the mean value, standard deviation and t value of Handgrip strength of Handball and Hockey state level male players of Karnataka state

Players	Sample Size	Mean	Std. Deviation	't' value
Hockey	25	47.2400	2.98998	-1.348
Handball	25	48.6000	4.06202	

*Significant at 0.05 level.

It is clear from the above table that calculated 't' value -1.348 is lesser than the table value so it is significant difference between Handball and Hockey state level male players on Body mass index.

In this component the Handball male players have shown more mean value then the Hockey male players.

It is clear that Handgrip strength of Handball male players are more than the Hockey male players.

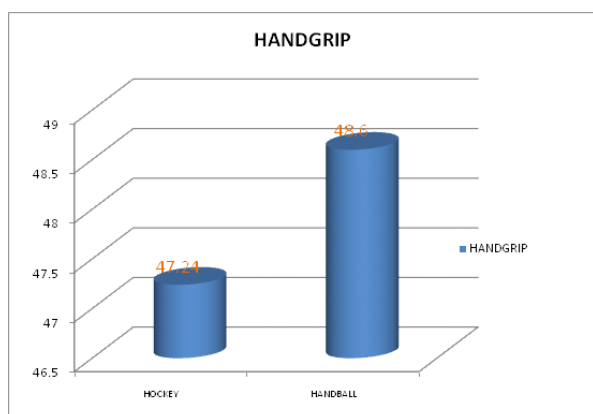


Fig 2: Graphical representation of the comparison of mean value of Handgrip strength between Handball and Hockey state level male players of Karnataka

CONCLUSION

On the basis of the study and within the limitation already cited, the following conclusions were drawn.

1. There was a significant difference in BMI and Handgrip strength between Hockey and Handball state level male players.
2. The Handball state level male players are significantly scored higher in Handgrip strength test.

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