

A Comparative Study of Grip Strength and Co-Ordination between Cricket and Handball Players

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Abstract

The purpose of the present study was to compare the grip strength and co-ordination between cricket and handball players. Out of total Forty ($N = 40$) male players, twenty ($n_1=20$) cricket players and twenty ($n_2=20$) handball players were selected randomly from Shiksha Bharti Vidya Niketan Kalayat, Haryana. The Age ranges of the subjects are 14-18 years. Grip strength was measured by Grip Dynamometer in kilogram and Co-ordination was measured by Alternative Hand Wall toss Test in seconds. The data of the selected variables were analyzed through statistical procedure by using t-ratio. The level of significance was set at 0.05 levels. There was no significance differences in grip strength of right hand and left-hand between cricket and handball players and Significant difference was found in Co-ordination between cricket and handball players.

INTRODUCTION

The game of cricket has a known history spanning from the 16th century to the present day, with international matches played since 1844, although the official history of international Test cricket began in 1877. Other British colonies followed suit, not long after. India is one of the elite test cricket playing country in the world. In India this game has become one of the best choices for the youth to build their sports carrier in future.

In both the games, at high levels of competition, whether it may be handball, demands excellent grip strength and hand-eye co-ordination of players. In the present study the researcher was interested to compare these two variables between the players of these two games. That's why in the present study was conducted by the investigators to find out the difference of grip strength and Co-ordination between the handball and Cricket players.

METHODOLOGY

Out of Forty ($N = 40$) male students, twenty ($n_1=20$) cricket players and twenty ($n_2=20$) handball players were selected randomly from Shiksha Bharti Vidya Niketan Kalayat, Haryana. The Age ranges of the subjects are 14-18 years. Grip strength was measured by Grip Dynamometer in kilogram and Co-ordination was measured by Alternative Hand Wall toss Test in seconds. Mean and standard Deviation of the variables were calculated. The data of the selected variables were analyzed through statistical procedure by using t-ratio. The level of significance for the present study was set at 0.05 level of significance which was found to be the appropriate enough for the study.

RESULT AND DISCUSSION

Table 1
Mean stander deviation and t-ratio of Grip Strength of Right Hand and Left Hand and Co-ordination between cricket and handball players

Variables	Cricket players		Handball Players		T-Ratio
	Mean	S.D.	Mean	S.D.	
Grip Strength of Right Hand (Kg.)	23.27	4.21	22.97	5.55	0.18
Grip Strength of Left Hand (Kg.)	23.02	4.45	20.74	4.66	1.57
Co-ordination (Sec)	29.04	6.01	33.29	5.15	2.39*

Table-1 reveals that the mean standard deviation and t- ratio of grip strength of right hand of cricket players were 23.27 ± 4.21 Kg. and Handball players were 22.97 ± 5.55 Kg. Grip strength of left hand of Cricket players were 23.02 ± 4.45 Kg. and Handball players were 20.74 ± 4.66 Kg. Co-ordination of Cricket players were 29.04 ± 6.01 sec. and Handball players were 33.29 ± 5.15 sec. In the table-1 it was also found that the 't-value' (required for significant 2.02) of right hand grip strength 0.18, left hand grip strength 1.57 and co-ordination 2.39* between Cricket and Handball players. It was also found from the result of the study that there was no statistically significant difference existed in both right & left hand grip strength between the cricket and Handball players. On the other hand statistically significant difference was found in co-ordination, at 0.05 level of significance, between the cricketers and Handball players.

DISCUSSION OF FINDINGS

From the findings of the study no significant differences were found in relation to grip strength between the cricketers and the Handball players. But the mean value in grip strength for both hand of the cricket players were slightly superior to the Handball players but it was not enough to be statically significant. Though the difference was not significant but the superiority in grip strength of the cricketers may be explained as follows. In cricket and Handball, the players have to swing the bat and ball. The cricket bat is heavier in weight than the Handball ball. Again the ball faced by the cricketers is too heavier than the Handball ball. But in cricket, a player bated for a certain period and only during this period he has to swing the bat, on the other hand a Handball player have to swing the ball throughout the game. That's why the researchers did not find any significance differences in grip strength between the cricketer and the Handball player.

On the other hand, in Co-ordination it was found that Handball players were significantly superior to the cricketers. This result may be explained as follows. In Handball the players of both teams engaged for almost all the time while the game is on. Handball is also played outdoors as a casual recreational activity, often as a garden or

lawn. But in cricket a batsman chooses the appropriate ball to hit and take a run only when it is possible, a bowler jumps up to deliver a ball, a fielder fields a ball coming to his direction. All the players remain more active during the course of the game while the cricketers need to be active occasionally, so they are comparatively less active than the Handball players. That is probably the cause behind getting such result in co-ordination.

CONCLUSION

There was no significant difference found in grip strength of both hands between cricketers and Handball players. Significant difference was found in respect of co-ordination between cricketers and Handball players.

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