

COMPARATIVE ANALYSIS ON CARDIOVASCULAR ENDURANCE AMONG WICKET KEEPERS AND SPIN BOWLERS IN CRICKET

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Abstract

The purpose of the present study was to compare the Cardiovascular Endurance of Wicket keepers and Spin bowlers in cricket. The study was administered on 20 Cricket players in the age group 18-25 years from various colleges affiliated to Madras University, Chennai. The Cardiovascular Endurance which was used in this study is 12 minutes cooper test run / walk. To find out the significance difference t-test was used. The level of significance was chosen as 0.05 levels. Result of this study reveal that there was significant difference exit between Cardiovascular Endurance (2.898) of Wicket keepers and Spin bowlers as the tabulated 't' (2.086).

Keywords: Position, Batsman, Players and Strength.

Introduction

Cricket matches can last for very long periods of time, particularly at the highest levels during 50 over matches. Players can be on the pitch for up to four hours at a time before a break in play which will test their concentration levels as well as fitness. The better physical condition a player is in the better their concentration will be and the more effective their performance, regardless of whether they are batting, bowling or fielding. As every player will be required to bat and field during a match, it is crucial that training encompasses all aspects of the game in order for them to perform. While the dynamics of the game mean that play is very stop start, as the bowler resets for every ball delivery, the players need to be focused and ready to explode into life once the batsman has played a shot. This applies to players in each position. The batsman must be able to sprint from one end of the pitch to the other; the fielders must be alert and agile to get to the ball as quick as possible and the bowlers must be able to sustain concentration and fitness throughout each of their bowling sessions, which can often last for three to four hours.

Aerobic training is particularly important during the off-season. It will allow players to build up a strong level of cardiovascular endurance and ensure that they are maintaining a good level of fitness. Running, cycling, rowing and swimming are the best forms of aerobic training and these sessions should be conducted at a low to medium intensity over longer periods of time. Forty five minutes to an hour of good aerobic training will work up a good sweat and get the heart rate and lungs working.

Methodology

Selection of the subjects

The purpose of the study was to find out the comparative analysis on Cardiovascular Endurance among Wicket keepers and Spin bowlers in cricket. To achieve the purpose, 20 Cricketers (age 16-25) were selected from the various colleges affiliated to Madras University, Chennai.

Tools and Techniques

| Variable | Tests | Unit of measurement |
|--------------------------|-----------------------------------|---------------------|
| Cardiovascular Endurance | 12 minutes Cooper test run / walk | Meters |

Procedure

Players are allowing to warm up for 10 minutes. On the command of "GO", starts the stopwatch and the players commence the test. The assistant keeps the players informed of the remaining time at the end of each lap (400m). The assistant blows the whistle when the 12 minutes has elapsed and records the distance the athlete covered to the nearest 10 meters. Time will be recorded in minutes and seconds.

Statistical Analysis

A descriptive measure was given for the variable related to different levels of participants of Batsmen and Wicket Keepers in cricket separately. The investigator proceeded to fulfill the different objectives of the study by analyzing the data with the help of simple techniques like Mean and SD. The significance of difference in the mean scores of the Cardiovascular Endurance between Spin bowlers and Fast bowlers independent t-test were used.

Results

The value of calculated t-test was compared with the tabulated significant value at 0.05 level of significance with 99 degree of freedom. The details for comparative mean value and SD values of Cardiovascular Endurance were tabulated and presented below:

Table 1
COMPARISON OF CARDIOVASCULAR ENDURANCE AMONG WICKET KEEPERS AND SPIN BOWLERS IN CRICKET

| Variables | Wicket Keepers (N=10) | | | Spin bowlers (N=10) | | | ‘t’ ratio |
|---------------------|-----------------------|--------|-------|---------------------|-------|-------|-----------|
| | Mean | S.D | S.E | Mean | S.D | S.E | |
| 12 Min. Copper test | 2.21 | 122.02 | 38.59 | 2.07 | 91.89 | 29.06 | 2.898 |

Level of Significant at 0.05, tabulated (2.086)

Table-1 gives the mean scores of Cardiovascular Endurance. It can be observed that the mean scores of Wicket keepers are 2.21 while the mean score of Spin bowlers is 2.07. This shows that the batsmen have more endurance then the fast bowlers. The t-value of 2.898 is significant at 0.05 levels which state that there is a significant difference in the Cardiovascular Endurance between Wicket keepers and Spin bowlers in cricket.

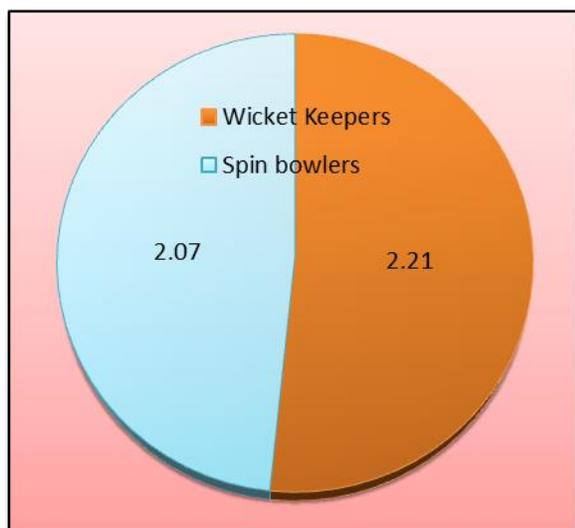


Figure 1: Mean Values of Wicket Keepers and Spin Bowlers on Cardiovascular Endurance

Conclusion

There is a significant difference in Cardiovascular Endurance between Wicket keepers and Spin bowlers in cricket. Batsmen have more Cardiovascular endurance then the fast bowlers. Further, suggested that the comparison can also be made between the non-players and players of other game in cardiovascular endurance.

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