

A COMPARATIVE STUDY OF VITAL CAPACITY AMONG BATSMEN AND BOWLERS OF HARYANA.

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Abstract-

In the present study, an attempt has been made to compare vital capacity of physiological component among batsmen and bowlers. The study was carried out on 200 male cricket players in the age group of 18-25 years, from batsmen (N=100) and bowlers (N=100). The subjects were selected from different cricket academy of Haryana, India. The data was collected by use of Wet spiro meter. The data was analyzed and compared with the help of statistical procedures in which arithmetic mean, standard deviation (S.D.), t-test were employed. Batsmen and bowlers vital capacity was found no significantly difference.

Keywords- Vital Capacity, batsmen, bowlers.

Introduction

The physiological demands of cricket are relatively mild, except in fast bowlers during prolonged bowling spells in warm or cold conditions. However, the physiological demands of cricket may be underestimated because of the intermittent nature of the activity and generally inadequate understanding of the physiological demands of intermittent activity.

Vital Capacity

Vital capacity is the maximum amount of air that can be exhaled forcefully after maximal (deep) inspiration. Inspiratory reserve volume, tidal volume and expiratory reserve volume are included under vital capacity.

Strukic (1981) defines vital capacity as a pulmonary measure that is frequently utilized to represent the capacity of the lungs. It is a vital fraction of the total lung capacity. It is also defined as the gigantic volume of air that can be blown out after the deepest attainable inhalation. It most likely represents a constitutional component of the body, similar to other anthropometric

evaluations of body size, since it is known to co-ordinate well with a wide range of strength tests in young boys.

In olden days, the game was played in different names in different countries. The game of Cricket is developed from a simple game of hitting an object with a piece of wood. Basically it is the battle between bat and the ball, but the approach has changed from time to time. Cricket is played in many forms such as Test, One day International, First class Twenty 20, Super Six, Indoor Cricket, Double wicket and Single wicket. Cricket is played in more than 105 countries around the world.

Objective-

The purpose of the study was to compare the Vital capacity among Batsmen and Bowlers.

Method

For the purpose of the investigation, the sample for the study were 200 male cricket players in the age group of 18-25 years, batsmen (N=100) and bowlers (N=100). The subjects were selected from different cricket academies at Haryana. To test the vital capacity of the subjects, they were divided into two groups i.e. to find the vital capacity of Batsmen and bowlers researcher used the spirometer. The test data had been collected, Vital capacity was measured of every individual with the help of spirometer.

To examine the hypothesis of the study that there will be no significant difference in the vital capacity of batsmen and bowlers, descriptive statistics and t-test analysis was employed for the present data.

DESCRIPTIVE STATISTICS OF VITAL CAPACITY

Table no.1 indicates the values of descriptive statistics of the batsmen and bowlers for vital capacity, which shows that the mean and S.D. values of batsman and bowlers were 4.37 & 0.38 and 4.56 & 0.41 respectively. S.E.M values of the batsman and bowlers were found to be 0.031 and 0.045 respectively.

Table No. 1

Descriptive statistics of Vital capacity of batsman and bowlers (in liters)

Variable	Group	N	Mean	Std. Deviation	Std. Error Mean
vital capacity	Batsmen	100	4.37	0.38	0.031
	Bowlers	100	4.56	0.41	0.045

Table No. 2

T-test description of batsmen and bowlers of vital capacity

Variable	Groups	df	t-value	Sig.
vital capacity	Batsmen-bowlers	198	0.38	0.12

The t-test value of vital capacity of batsmen and bowlers is shown in table 2. As shown in the table the batsmen were no significantly difference of vital capacity ($t=0.38$, $0.05 < p$) than the bowlers.

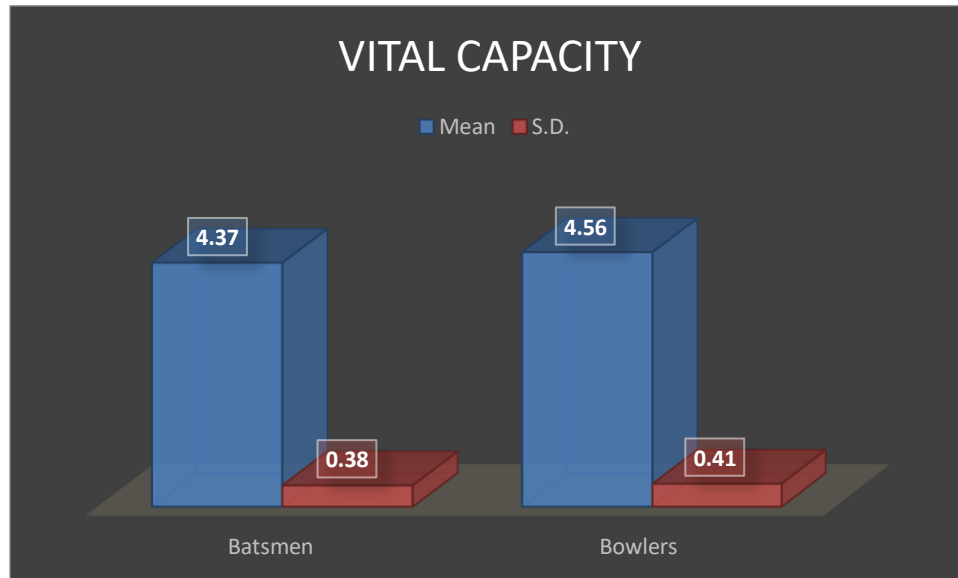


Figure No. 1- Bar diagram showing the mean value of vital capacity between Batsmen and Bowlers

Conclusion

In the present study it was concluded that batsmen were similar vital capacity as compared to the bowlers. So that, There were no significant difference in physiological variable vital capacity between batsmen and bowlers.

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