

COMPARATIVE ANALYSIS ON PHYSICAL FITNESS VARIABLES AMONG BATSMEN AND WICKETKEEPERS IN CRICKET

M. Kumar,^{a,*} Dr. S. Gladykirubakar^b

^aPhysical Director, Government Higher Secondary School, Melmalayanur - 604204, Villupuram, Tamilnadu, India

^bYMCA College of Physical Education, Nandanam, Chennai – 600 035, Tamilnadu, India

*Corresponding Author ph: +91 9940412283 Email: mkumarpdghss@gmail.com

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ABSTRACT: The purpose of the present study was to compare the Physical Fitness variables of Batsmen and Wicketkeepers in cricket. The study was administered on 20 batsmen and 20 wicketkeepers in the age group of 18 to 25 years were participated in the 2012 Buck Cricket Tournament was conducted by YMCA College of physical education, Chennai. The Physical Fitness variable which was used in this study is Flexibility, Agility, Speed, and Balance. To find out the significance difference t-test was used. The level of significance was chosen as 0.05 levels. Result of this study reveals that there was significant difference exit between the Flexibility (2.787) and no significant difference exit between the Balance (0.516), Agility (0.643), Speed (1.327) of Batsmen and Wicketkeepers in cricket as the tabulated 't'(2.024).

Key words: Physical Fitness, Batsmen and Wicket keepers.

INTRODUCTION

Fitness plays a small though significant part in the success of a cricketer. There are several components of fitness that are important for the success of the players. Cricket has determined that balance and coordination is seen as one of the most important aspects of cricket fitness, followed by speed and power.

Flexibility

Batsmen should have more flexibility, they need to have more flexibility to play a hook shot, pull shot, square cut.

Wicketkeepers have always had a vital role in cricket and they need much flexibility. It can be very tiring because wicketkeeper are effectively doing hundreds of squats and diving around the field. A good wicketkeeper can inspire a side; an inadequate one can stain the best of squads. A tremendous catch at a critical juncture can lift a team; a bad miss can send it out of the game.

Agility

Batsmen need agility to turn quick runs for doubles, three runs and four runs. The wicketkeeper must be alert and agile to get to the ball as quick as possible.

Speed

For batsmen and wicketkeepers, the primary energy system utilized during competition is the anaerobic lactic and alactic processes. In the acts of batting and wicket keeping, the intervals of activity requiring energy generation to power the cricketer's muscles will almost certainly be fewer than 40 seconds.

Balance

Batsmen need more balance to stay on the crease as long as possible after they scored 50 or 100 runs. Bowlers are long enough to hit the desired cruise speed and arrive balanced at the bound and deliver the ball. Wicketkeeper should be balanced and relaxed with their weight slightly forward on the balls of the feet for each and every ball.

Dean Jones identified its role in batting by saying, 'if you don't have balance', you don't have power. I like to adopt a boxer's stance with the bat raised (like the boxer's hands) and feet stable but ready to move [1]

METHODOLOGY

To achieve the purpose of the study 20 batsmen and 20 wicket keepers were selected as subjects from the various affiliated colleges of the University of Madras, Chennai. The subjects were in the age group of 18 to 25 years are selected on random basis from Buck Cricket Tournament was conducted by YMCA College of physical education, Chennai. The selected sample's was measured in four physical fitness tests were Flexibility, Agility, Speed, and Balance.

TOOLS AND TECHNIQUES

S. No.	Variable	Tests/ Equipment	Unit of measurement
1.	Flexibility	Sit and Reach Test [2]	Centimeters
2.	Agility	Illinois Agility Test [3]	Seconds
3.	Speed	50 M dash [2]	Seconds
4.	Balance	Stork Balance Stand Test [4]	Seconds

STATISTICAL ANALYSIS

The data analyzed and compared with the help of statistical procedure in which arithmetic mean, standard deviation and t-test used to compare the data.

RESULT

The value of calculated t-test was compared with the tabulated significant value at 0.05 level of confidence with 95 degree of freedom. The details for comparative mean value and SD values of physical fitness variables were tabulated and presented below:

Table I

S.No.	Variables	Batsmen			Wicketkeepers			T Ratio
		Mean	S.D	S.E	Mean	S.D	S.E	
1	Flexibility	0.64	0.93	0.21	1.55	1.13	0.25	2.787*
2	Agility	16.05	0.54	0.12	16.19	0.78	0.17	0.643
3	Speed	6.15	0.30	0.06	6.05	0.19	0.04	1.327
4	Balance	0.53	0.36	0.81	0.58	0.27	0.06	0.516

***Significant at 38 df at 0.05 level 2.024**

Table I clearly indicates that the obtain T ratio value on the score of flexibility 2.787 was higher than the required table value of 2.024, which proved that there was significant difference on flexibility among batsmen and wicketkeepers in cricket. T ratio value on the score of agility 0.643, speed 1.327 and balance 0.516 was lesser than the required table value of 2.024, which proved that there was no significant difference on agility, speed and balance among batsmen and wicketkeepers in cricket.

DISCUSSION ON FINDING

Wicketkeeper are effectively doing hundreds of squats and diving around the field during cricket match. Wicketkeeper crouches before every delivery bowled and has to be alert and fit enough to collect balls thrown to him by the fielders. On the other hand, power comes from having a strong core, abdominal mid-section and the ability to generate explosive upper body actions. Wicketkeeper should have the ability to sustain a concentrated effort for a period of six hours or more without fatigue and in sometimes in very warm conditions. The body must be capable of explosive bursts at any given time, such as racing for a ball, jumping for a catch, stumping. Wicketkeepers are having good balance behind the stumps and they are maintaining

their position more than three hours. In this study wicketkeepers have dominating more flexibility, speed and balance than the batsmen in cricket. Hence, there was significant difference between batsmen and wicketkeepers on flexibility, speed and balance.

Batsmen have good agility rather than the wicketkeepers, because they can turn quick runs for doubles, three runs and four runs. Hence, there was significant difference between batsmen and wicketkeepers on agility.

The result of the study was also in accordance with the findings of found that the cricket players were better than footballer in shuttle run test, muscular strength, circulatory respiratory endurance, flexibility and agility [5].

Figure I

MEAN VALUES OF BATSMEN AND WICKETKEEPERS ON PHYSICAL FITNESS VARIABLES



CONCLUSION

The findings reveal that the physical fitness variables of flexibility shown significant difference and balance, agility, speed have no significant difference between batsmen and wicketkeepers at the level of significance is 0.05.

- Significant difference was found on Flexibility among Batsmen and Wicketkeepers in Cricket.
- No significant difference was found on Agility, Speed and Balance among Batsmen and Wicketkeepers in Cricket.

Wicketkeepers have more Flexibility, Speed and Balance rather than the Batsmen.
Batsmen have dominating more Agility than the Wicketkeepers.

Further, suggested that the comparison can also be made between the non-players and players of other game in Physical Fitness parameters.

REFERENCES

1. F. Pyke and K. Davis (2010) Cutting Edge Cricket, United States: Human Kinetics, p: 39.
2. A. Yobu (1988) Test, Measurement and Evaluation in Physical Education and Sports. New Delhi: Friends Publication. Pp 190-460.
3. B. Getchell (1979) Physical Fitness: A Way of Life, (2nd edition), New York: John Wiley and Sons, Inc.
4. L. Johnson, J. K. Nelson (1986) Practical measurements for evaluation in physical education, New York, Macmillan.
5. S. K. Gaur, D. Nigam, A Calculation of Motor Fitness Components of Inter-University cricket and Football Players, *Research Journal of Humanities and Social Sciences*, 2 (2011) 193-195.
