



An Evaluation Of Specific Fitness Variables On State & University Level Cricket Players Of Chhattisgarh Region

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Abstract

The purpose of the study was to evaluate the specific motor Fitness profile of state & university level cricketers of Chhattisgarh region. Total 100 Cricketers of age ranged between 16 to 25 years were selected from CG University through purposive sampling method. Subjects were divided into two Groups Under-19 (group 1, N=50) and above-19 (group 2, N=50) of age. Descriptive statistics was used with SPSS 2.0 version. And the level of significance was fixed at 0.05 for testing the hypothesis. The result of the study revealed that there was difference in the specific motor fitness variables cricket players of Chhattisgarh region. But results were not as convincing as most of the variables did not reach the significance level in statistical computation. It was recommended to bring related studies on larger sample and different age category players.

Key words: Specific Motor Fitness, Cricket players.

1.1 Introduction

Cricket is a foremost international sport with loads of dollars being expended and acquired on the international and national scenes. It is an exclusive sport as it has three different formats that are played at the highest level. Multi-day cricket can be played over two- four days (domestic level) or five days at international level with both teams normally involved in two innings of batting and bowling/fielding. Fitness in Cricket / Physiological requirements Cricket is unique in which the physiological demands vary greatly, **Johnston and Ford (2010)** [8] gave some guidelines as to what strength and conditioning coaches should concentrate on according to the specific demands of cricket and the connected playing positions. They suggested that strength and acclimatizing coaches should, after completion of a general training program, focus on developing lower-body speed (explosive and repetitive) and anaerobic upper-body power within players. Greater flexibility in the lower lumbar and hamstrings could be needed within the bowling group because of the functional requirements during the delivery stride. It was found that athletes within the study who had engaged in a periodised program achieved superior performance ratings within the sprinting, upper-body power and flexibility assessments in comparison with their peers, thus providing further evidence to the cricket community about the value of a long-term annual periodised program (**Johnston & Ford, 2010**) [8].

There are 2 things that matter in cricket – ability & fitness. If you haven't got the first, then the second does not matter all that much. But if you have got two sides of equal ability, then obviously the fitter one is going to have the edge" (**Greg Chappell, 1978**) A cricket player ought to possess specific speed, strength, power, agility, flexibility and endurance in abundance so as to learn and master the techniques of the game. Modern demands in one day competitions, especially for training of fast bowlers, batsman, fielders and wicket-keepers adequate emphasis is given for the development Physical characteristics.

All above characteristics comes under the motor fitness. Balancing, coordination, agility, speed, and reaction time are specific motor fitness and important for a cricketer. It is also recognized as skill-related Fitness. Skill can be defined as the ability which results in maximum certainty and efficiency, and specific to any game or sports. In this study specific sports is cricket and the study is all about the cricketers. Skills of cricketers can be developed by specific measures related to cricket which is associated with muscle activity.

1.2 The Purpose of the Study

The purpose of the study was to evaluate the specific motor fitness profile of state & university level cricketers of Chhattisgarh Region.

1.3 Hypothesis

It was purported that there might be a significant difference in specific motor fitness profile of state & university level cricketers of Chhattisgarh Region.

2. Methodology

2.1 Selection of Subjects

The present study was an experimental study. Total 100 Cricketers of age ranged between 16 to 25 years were selected from CG University through purposive sampling method. Subjects were divided into two Groups Under-19 (group 1, N=50) and above-19 (group 2, N=50) of age.

2.2 The Criterion Measures

Total 11 specific physical fitness and anthropometric variables were tested during the study with their specific test. 20 Meter Dash, 40 meter dash, Run-a-Three, Half Squats, Abdominal Crunches, Seat and Reach, Push Ups, Vertical Jump, Height (Standing), Body Mass.

2.3 Collection of Data

The data were gathered through administering of the above mentioned test measures. The research scholar enlightened the purpose of the study and detailed procedure of the test before the assemblage of data, so that all the subjects could put their best efforts during tests.

3. Analysis of Data

Descriptive statistics; Means and Standard Deviation were computed. Independent Sample t-test was used with SPSS 2.0 version. And the level of significance was fixed at 0.05 for testing the hypothesis.

Table-1

Mean & Standard Deviation of Specific Motor Fitness & Anthropometric Variables of State & University Level cricketers of Chhattisgarh Region.

Variables	Age category	N	Mean	Std. Deviation
Height in Cms	Under 19	50	174.1800	4.61006
	Under 25	50	174.2553	4.92174
Weight in Kg	Under 19	50	68.6600	7.25796
	Under 25	50	68.9020	7.31096
Vertical Jump in Cms	Under 19	50	55.0200	6.01186
	Under 25	50	55.1961	6.06637
20mtrs Dash in Sec	Under 19	50	3.1214	.12053
	Under 25	50	3.1186	.11947
40mtrs Dash in Sec	Under 19	50	3.1214	.12053
	Under 25	50	3.1186	.11947
Run A Three in Sec	Under 19	50	9.6718	.38841
	Under 25	50	9.6537	.40102
Pull ups	Under 19	50	7.2000	2.70298
	Under 25	50	7.2157	2.67816
Half Squats	Under 19	50	20.8400	3.66651
	Under 25	50	20.9020	3.66199
Push-ups (Floor)	Under 19	50	31.9800	7.98849
	Under 25	50	32.3922	8.20263
Sit and Reach in Cms	Under 19	50	15.9000	2.32535
	Under 25	50	15.9804	2.33658
Abdominal Crunches	Under 19	50	67.6200	10.58086
	Under 25	50	67.9608	10.65075

Table-1 is showing the Means, Standard Deviation of Specific Motor Fitness and Anthropometric Variables of State & University Level cricketers of Chhattisgarh Region.

The above descriptive table is presenting that Under 25 age Cricketers are having advanced mean in Height, Weight, Vertical Jump, Pull ups, Squats, Pushups, Sit and Reach and Abdominal crunches than the Under 19 age category Cricketers of Chhattisgarh Region, While Under 19 Cricketers are having greater mean in Run a three, 40mtr and 20mtr Dash than the Under 25 age category Cricketers of Chhattisgarh region.

Table-2

Independent Sample t-test of Specific Motor Fitness and Anthropometric Variables of State & University Level cricketers of Chhattisgarh Region.

Variables	Variance	t	Df	Sig.
Height	Equal Variance Assumed (EVA)	-.057	99	.954
	Equal Variance Not Assumed (EVNA)	-0.057	98.798	.954
Weight	(EVA)	-.165	99	.868
	(EVNA)	-.165	98.796	.868
Vertical Jump	(EVA)	-.145	99	.885
	(EVNA)	-.146	98.986	.885
20mtrs Dash	(EVA)	.115	99	.907
	(EVNA)	.115	98.987	.907
40mtrs Dash	(EVA)	.101	99	.918
	(EVNA)	.101	98.918	.918
Run A Three	(EVA)	.250	99	.818
	(EVNA)	.250	98.946	.818
Pull ups	(EVA)	-.028	99	.976
	(EVNA)	-.028	98.916	.976
Half Squats	(EVA)	-.081	99	.930
	(EVNA)	-.081	98.989	.930
Push-ups (Floor)	(EVA)	-.247	99	.788
	(EVNA)	-.247	98.999	.788
Sit and Reach	(EVA)	-.169	99	.856
	(EVNA)	-.169	98.980	.856
Abdominal Crunches	(EVA)	-.160	99	.874
	(EVNA)	-.160	98.982	.874

at 0.05 Level of Significance

Table-2 is showing the findings of independent T-test. It is showing that there is no significant difference between any Specific Motor Fitness and Anthropometric variable of U-19 and above-19 age category of Chhattisgarh Region Cricketers at 0.05 levels.

3.1 Discussion on Findings

On the basis of findings of Table-1 and Table-2 it was found that there was no Significance difference between any physical fitness variable of U-19 and above-19 age category of Chhattisgarh Region Cricketers at 0.05 levels.

3.2 Discussion of Hypothesis

The Hypothesis stated earlier was **rejected** at the 0.05 level of significance.

3.3 Result

The results of the present study for State and University level cricketers were not as conclusive as for the University level cricketers. One of the reasons may, both the level category players training pattern is the identical and they play equivalent format of tournament. There is not plentiful difference between Under 19 and above-19 (under 25) age grouping Cricketers because U-19 age group player's maturation was also developed at this age group significantly. So parameters which are contributing to develop physical fitness in the athletes residues identical for the both the categories, only matters is the training concentration. Also for both the categories training period was conducted for same number of days. So that it might contribute no significant difference in both the categories related to their physical fitness and selected anthropometric component. Maturation, same training pattern and similar format participation in the tournament have made them similar in the study.

4. Conclusions

The results were not as conclusive of the present study, In 9 specific motor fitness and 2 anthropometric variables ABOVE-19 Cricket players were superior to U-19 Cricketers but failed to reach the significant level. U-19 cricket players were superior to above-19 cricket players but they too failed to reach the significant level statistically As a result it was concluded that Specific Motor fitness tests should be used for monitoring and talent identification purposes need to replicate the demands of the sport as closely as possible.

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