



## A COMPARATIVE STUDY OF SELECTED ANTHROPOMETRIC MEASUREMENTS IN RELATION TO SIXER HITTING ABILITY OF BELAGAVI ZONE ADULT CRICKET PLAYERS

**Dr. BASANAGOUDA S LAXMESHWAR**

Physical Education Director

Shri Kumareswar Art's and Commerce College

Hangal – 581104, KARNATAKA

### ABSTRACT

Sports and Physique are the interrelated each other, because for sports we have to maintain our physique very well. In olden days the sports got that's own way. They did not know properly about the physique and all things of human body and benefit of that. So in modern day's sports having the strong relationship with the physique. In day today's life the sports persons were getting more success by knowing the benefit of their body proportions with the help of the sciences, especially Biomechanics, Kinesiology, and anthropometry. For all sports the physique is very necessary because the sports are majorly goes or plays through the body proportions. So we have to keep our physique in very fine way for the success in sports.

**KEY WORDS:** Anthropometric, Cricket and Sixer Hitting.

### 1. INTRODUCTION:

Sports and Physique are the interrelated each other, because for sports we have to maintain our physique very well. In olden days the sports got that's own way. They did not know properly about the physique and all things of human body and benefit of that. So in modern day's sports having the strong relationship with the physique. In day today's life the sports persons were getting more success by knowing the benefit of their body proportions with the help of the sciences, especially Biomechanics, Kinesiology, and anthropometry. Physique is comprised of three distinct, yet interrelated components namely Body Size, Body Structure and body composition (Boileau and Lohman, 1977). Body size refers to the physical magnitude of the body and its segments are Length, Mass, Volume and Surface area. The influence of body physique on physical performance dates back to antiquity (Gunther, 1975). Why this assessment of physique is important in sports? The assessment of the physique can be used to ascertain an individual's readiness for sports participation in terms of injury prevention. The assessment of physique can also be utilized to characterize the profiles of Athletes in different sports. An individual with a particular profile can be encouraged to participate in the sport for which he or she is physically best suited.

The anthropometry is also important aspect in the sport; this science is helps to measure the human body proportions. It involves the various variables in it, because the human body got the different proportions. So for this, Anthropometry also got different variables, Arm span, Leg length, Height, Weight. Using these variables of Anthropometry we measures the human body proportions and its very necessary in selection of players for different sports. And by measuring these proportions of the body is useful to know player and for which sport he will be suitable for, also knowing these all, how the sports persons gets their success in sports.

Cricket is one of the best and favorite games for everyone, from children to their grandparents. It has been the most entertaining game since long years back. Cricket can be played both socially and competitively, by males and females of all ages. While competitive Cricket is mostly played on a pitch on an oval field. It's been played in England

since the 16th century and became popular worldwide. It has undergone major developments in the 18th century. The game has become faster and shorter in this format, there are also new rules which have been applied to this form of the game. One-day and tests have been the popular forms of the game.

## 1.2 PURPOSE OF THE STUDY

The main purpose of the study is to find out is there any significant relationship between selected anthropometric variables (Height, Weight and Arm Span) for the six hitting ability of a batsman in cricket?

## 2. METHODOLOGY

### 2.1 SAMPLES FOR THE STUDY

For the present study we selected 63 male cricket players from Belgaum division who played in VENUGRAM TROPHY CRICKET TOURNAMENT 2016, held at Union Gymkhana ground Belgaum on 12<sup>th</sup> to 24<sup>th</sup> April, were selected as subjects for this study.

### 2.2 TOOLS USED

Sl.no	Variables measured	Units	Instruments
1.	Height	Centimetres	Stadio-metre
2.	Weight	Kilograms	Weighing machine
3.	Arm span	Centimetres	Measurement tape

## 3. DATA ANALYSIS AND INTREPRETATION

TABLE-1: Showing the relationship between Heights of the players and six hit by cricketers.

spearman's rho	Six hit by cricketers	Correlation co-efficient	Six hit by cricketers	height of the players
		sig (2-tailed)	1	0.195
		Number	.	0.126
			63	63

\*No correlation found

The heights of the players and six hit by the cricketers are positively correlated but correlation is not at the significant level.

TABLE-2: Showing the relationship between Weights of the players and six hit by cricketers.

spearman's rho	six hit by cricketers	Correlation co-efficient	six hit by cricketers	weight of the players
		sig (2-tailed)	1	.387**
		Number	.	0.002
			63	63

\*The weights of the players are significantly correlated with six hit by cricketers.

When we see the table no 2, it reveals that weights of the players and six hit by the cricketers are positively correlated and the level of correlation is at significant level.

**TABLE3: Showing the relationship between Arm spans of the players and six hit by cricketers.**

		six hit by cricketers	six hit by cricketers	arm span of the players
spearman's rho	six hit by cricketers	Correlation co-efficient	1	.307*
		sig (2- tailed)	.	0.015
		Number	63	63

\*correlation significant at the 0.05 level (2-tailed)

The arm spans of the players and six hit by cricketers are significantly correlated.

When we see the table no 3, it reveals that arm spans and six hit by cricketers are positively correlated. And the correlation is at significant level.

### 3.1 STATISTICAL TECHNIQUES AND ANALYSIS

After collecting data they were compiled using Microsoft office 2010 excel sheet and further data was analyzed using the IBM SPSS 21.0 software to check the assumed hypothesis. Spearman's correlation statistical technique was used to get proper result.

### 4. CONCLUSION

After analyzing all the aspects of the study the investigator came for following conclusions. The whole study reveals that, height of the cricket players and six hitting ability are positively correlated. But correlation is not at the significant level. The weight and arm span of the players for six hitting ability are positively correlated and the level of correlation is at significant level. So the weight and arm span having the significant relationship with the six hitting ability of the cricketers.

### 5. RECOMMENDATIONS

- 1) This study includes only selected anthropometric measurements of cricket players, these can be used by selectors to find out the six hitting ability of a player while choosing him for a team.
- 2) This study is only limited to the Belgaum division cricket players. Such studies can be extended to various district, state and national level players.
- 3) This study was only for male cricketers. Such studies have to be conducted on female cricketers also.
- 4) Samples taken for the study is small. More numbers of samples will give the specific results for the study.
- 5) This study can be majorly recommended in the T20 cricket, because this format is known for most big hits (sixes). For this reason this study helps in selection of batsmen.
- 6) This study includes only selected anthropometric variables of cricketers, this study may extend to factors that helps in six hitting ability of a batsmen.
- 7) Further recommended to do same study on similar big hitting games like Baseball, Softball.

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