



## ANALYSIS OF SELECTED KINANTHROPOMETRIC VARIABLES BETWEEN BATSMEN AND BOWLERS OF INTERUNIVERSITY

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### ABSTRACT

The purpose of this study was to compare the selected kinanthropometric variables between batsmen and bowlers of interuniversity. The purpose of this study was to compare the selected kinanthropometric variables between batsmen and bowlers of interuniversity, to achieve above purpose sixty male cricket players from the four Universities of U. P., were selected as the subject that is 30 batsmen and 30 bowlers. All subjects were selected from different universities team that is from Allahabad, Kanpur, Lucknow and Varanasi who had participated in Interuniversity. Their average age is 23 years; the study was confined to the kinanthropometric variables namely, upper arm, fore arm, thigh and calf girth. The data of selected subject for selected kinanthropometric variables were recorded with the help of measuring tape. There is significant difference found between the mean value of forearm and thigh girth between batsmen and bowlers and no significant differences were found for the mean value of upper arm, and calf girth between batsmen and bowlers. With the limitations of the study it may be concluded that, there was significant difference between batsmen and bowlers of Uttar Pradesh in relation to their forearm and thigh girth, the forearm girth of batsmen is more than bowlers and thigh girth of bowlers are more than batsmen. There was no significant difference found between the batsmen and bowlers of Uttar Pradesh in relation to their upper arm and calf girth.

**Keywords:** Kinanthropometric, batsmen and bowlers.

### INTRODUCTION

Sports is one of the avenues of mankind's never ceasing strive for excellence. Its uniqueness lies in the intimacy between the physical happenings of our bodies and their repercussions on our minds, as well as in the general recognoscibility of the social and aesthetic value. Sports evoke experience that is exclusively human and independent of the changing forms, patterns customs of a civilization, which involves profoundly modifying concepts of our environment. From its very simple form, a sport has emerged into highly organized form of play and play is a general innate tendency.

In many sports, body composition is important for optimal physical performance. Generally, a relatively low body fat is desirable to optimize physical performance in sports requiring jumping and running. A large muscle mass enhances performance in strength and power activities. Because of this performance – related implications, coaches, parents, exercise scientists, sports medicine specialists, and of course the athletes themselves have an interest in body composition. Typically, athletes and physically active individuals are leaner than sedentary individuals, regardless of gender. However, female athletes have relatively greater body fat than male athletes in a given sport, and the average body fatness depends on the type of sport and the athletes' position

It is well known that the body composition of an athlete plays a critical role in sports performance. However, although many studies exist concerning the kinanthropometric attributes of mainstream sports, few studies are forthcoming on individual martial arts disciplines, especially in elite athletes.



## METHODOLOGY

The purpose of this study was to compare the selected kinanthropometric variables between batsmen and bowlers of interuniversity, to achieve above purpose sixty male cricket players from the four Universities of U. P., were selected as the subject that is 30 batsmen and 30 bowlers. All subjects were selected from different universities team that is from Allahabad, Kanpur, Lucknow and Varanasi who had participated in Interuniversity. Their average age is 23 years; the study was confined to the selected kinanthropometric variables namely, upper arm, forearm, calf and thigh girth. The data of selected subject for kinanthropometric variables (upper arm, fore arm, calf and thigh girth) were recorded by measuring tape, data was recorded in centimeter. The 't' test was applied to find out the difference in the selected kinanthropometric variables between batsmen and bowlers of interuniversity at 0.05 level of significance.

## FINDINGS

After collecting the data of selected kinanthropometric variables between batsmen and bowlers of interuniversity, the 't' test was applied to find out the difference in the selected kinanthropometric variables between batsmen and bowlers of interuniversity. The findings of the study are presented in the Tables given below.

**TABLE 1**  
**'T' TEST ON THE FOREARM GIRTH BETWEEN BATSMEN AND BOWLERS**  
**OF INTERUNIVERSITY**

Variables	Players	Mean	S.D.	S.E.D.	't' value
Forearm Girth	Batsmen	26.86	2.02	0.501	3.2314*
	Bowlers	25.24	1.86		
Upper Arm Girth	Batsmen	27.36	1.24	0.313	0.3840
	Bowlers	27.24	1.18		
Calf Girth	Batsmen	28.84	2.48	0.61	0.295
	Bowlers	29.02	2.24		
Thigh Girth	Batsmen	41.28	2.82	0.818	4.1087*
	Bowlers	44.64	3.48		

\*Significant at 0.05 level, tab.t.05 (58) = 1.672

The table 1 shows that there is significant difference between batsmen and bowlers of interuniversity on the kinanthropometric variables Forearm Girth and Thigh Girth where as there is no significant difference between batsmen and bowlers of interuniversity on the kinanthropometric variables Upper arm girth and Calf girth.



## DISCUSSION OF FINDING

There is significant difference found between the mean value of forearm and thigh girth between batsmen and bowlers and no significant differences were found for the mean value of upper arm, and calf girth between batsmen and bowlers. The insignificant difference may be due to batsmen and bowlers are doing same type of training of movement while taking part during practice. A significant difference in forearm girth between batsmen and bowlers of interuniversity was obtained. The significant difference may be attributed to the fact that batsmen perform more of forearm movement while batting as compare to bowler. A significant difference in thigh girth between batsmen and bowlers of interuniversity was obtained. The significant difference may be attributed to the fact that the bowlers do more running type of movement which develops their thigh muscle in comparison to batsmen.

## CONCLUSIONS

With the limitations of the study it may be concluded that, there was significant difference between batsmen and bowlers of Uttar Pradesh in relation to their forearm and thigh girth, the forearm girth of batsmen is more than bowlers and thigh girth of bowlers are more than batsmen.

There was no significant difference found between the batsmen and bowlers of Uttar Pradesh in relation to their upper arm and calf girth.

## REFERENCES

- Koley, S. and Kar, A, (2017). "Correlation of Back Strength with Selected Anthropometric Variables and Performance Tests in Indian Inter University Male Field Hockey Players." *Human Biology Review*. Vol. 6(1).
- Singh J, (2014), "Relationship of anthropometric measurement and general motor ability to handball playing ability" *Journal of Physical Education and Yoga*, 5 (No.1).
- Singh J. (2012), "Relationship of selected kinematic variables with the performance of in-swing in fast bowling at gather phase" *International Journal of Sports Sciences and Fitness*. 2 (2), 294-300.
- Shariat Ardalan et al (2017). "Kinanthropometric attributes of elite male judo, karate and taekwondo athletes." *Revista Brasileira de Medicina do Esporte*, vol.23 no.4 São Paulo July/Aug. 2017.
- Sharma, H. B., Gandhi, S., Meitei, K. K., Dvivedi, J. and Dvivedi, S. (2017). "Anthropometric Basis of vertical jump performance: A study of young Indian National players." *Journal of clinical and Diagnostic Research*. Vol. 11(2).
- Shukla Suyash, JS, (2015) "Comparison of Sports Morality among Male Cricket Players of Various Levels" *International Journal of Movement Education and Sports Sciences*, 3 (1), 63-67.
- Tanwar, B. (2013). "Prediction of Playing Ability of University Level Handball Players In Relation To Their Motor Ability and Kinthropometric Variables." *International Journal of Social Science & Interdisciplinary*, Vol.2 (1), 172-193.