



A COMPARATIVE STUDY ON SELECTED ANTHROPOMETRIC MEASUREMENT OF RURAL AND URBAN SCHOOL FOOTBALLERS

Tarun Biswas

RESEARCH ARTICLE



Author Details: Assistant Professor, B.P.Ed. Dept. Nikhil Banga Sikshan Mahavidyalaya, (Govt. Aided B.Ed. & B.P.Ed. College), Bishnupur, West Bengal, India; & Ph.D. Scholar, College of Physical Education, Shivaji Nagar, Yavatmal, Maharashtra, India

Corresponding Author:
Tarun Biswas

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Abstract

The main aim of this study was to find out the differences of anthropometric measurements between urban and rural school footballers. For the present study 120 male subjects (N=120) from rural and urban secondary school football players were selected from five (5) district in western region of West Bengal. Sixty (60) subjects were selected each from rural and urban secondary schools. In case of Twelve (12) rural and Twelve (12) urban subjects were selected from each district with the help of simple random sampling method, those who were participated Sub-divisional football tournament at least two years were selected for the current study. The subject's age ranged between 14 to 16 years. Anthropometric measurements such as Weight, Height, Hip circumference, Chest circumference, Upper arm circumference, Thigh circumference, Upper leg length and Lower leg length were taken as the variances of this study. The selected variables were analysed by using independent 't' test. The result of the study found that there is significance difference of anthropometric measurements between urban and rural school footballers except Upper arm circumference.

Keywords: *Anthropometric measurement, Rural and Urban footballer*

Introduction

Sports hold an important and prominent place in the school and college curriculum and immense stress is laid on regular games and sports being played by the students to keep them physically fit and mentally alert. Various sports are played within the school to give maximum students an opportunity to play organized competitive games. Anthropometric measurements are those that characterize human body dimensions (size and shape). Anthropometry is scientific study of the measurement and proportions of the human body. These measurements are primarily of bone, muscle, and adipose tissue (fat). Recently it has taken a strong bonded relationship with physical and sports sciences. Although not the most important attribute for success in football, the body size height, weight, percentage of body fat etc of players can still play significant a part in their performance. There are clear differences in the body size of players depending on the position played on the field. The researcher was trying to find out the differences of anthropometric measurements between urban and rural school footballers.

Objective

An objective of this study was to find out the differences of selected anthropometric measurements between urban and rural school footballers.

Methodology

The present study was attempted on 120 male subjects (N=120) from rural and urban secondary school football players were selected from five (5) district in western region of West Bengal. Sixty (60) subjects were selected each from rural and urban secondary schools. In case of Twelve (12) rural and Twelve (12) urban subjects were selected from each district with the help of simple random sampling method, those who were participated sub divisional football tournament at least two years in the session 2022 - 2024 were selected for the current study. The subject's age ranged between 14 to 16 years. Anthropometric measurement have been taken of all this 120 students.

Hypothesis

On the basis of literature, discussion with expert and scholar's own understanding it was hypothesized that there will be significance differences of Selected Anthropometric Measurement between urban and rural school footballers.

Result and Discussion

Data of the pertaining study was collected by above mention test and help of researcher. To determine the differences of Selected Anthropometric Measurement between the rural and Urban school footballers independent 't' test statistical technique was employed. Level of significance was set at 0.05. The results pertaining to these have been presented in the following tables.

Table -1

Mean comparison of height & weight, upper leg length, lower leg length between urban and rural high school Football players

Test item	Rural		Urban		Mean difference	't' value
	Mean	SD	Mean	SD		
Height	158.59	3.72	157.45	3.13	1.14	3.57*
Weight	40.69	2.31	43.28	2.47	2.59	12.34*
Upper leg length	39.05	2.76	37.08	2.75	1.97	7.88*
Lower leg length	36.89	3.04	36.02	2.99	0.89	12.37*

*Significant at 0.05 level able value of $t(df=118)=1.980$

Table -1 reveals that there are significance differences of selected Anthropometric measurements that are Standing height, Body weight, Upper leg length and Lower leg length, between rural and Urban school football players because calculated 't' value of 3.57,12.34, 7.88 and 12.37 respectively are higher than the Tabulated 't' value of 1.980 at 0.05 level of confidence for 118 degree of freedom. The mean differences have been shown graphically in Fig.1.

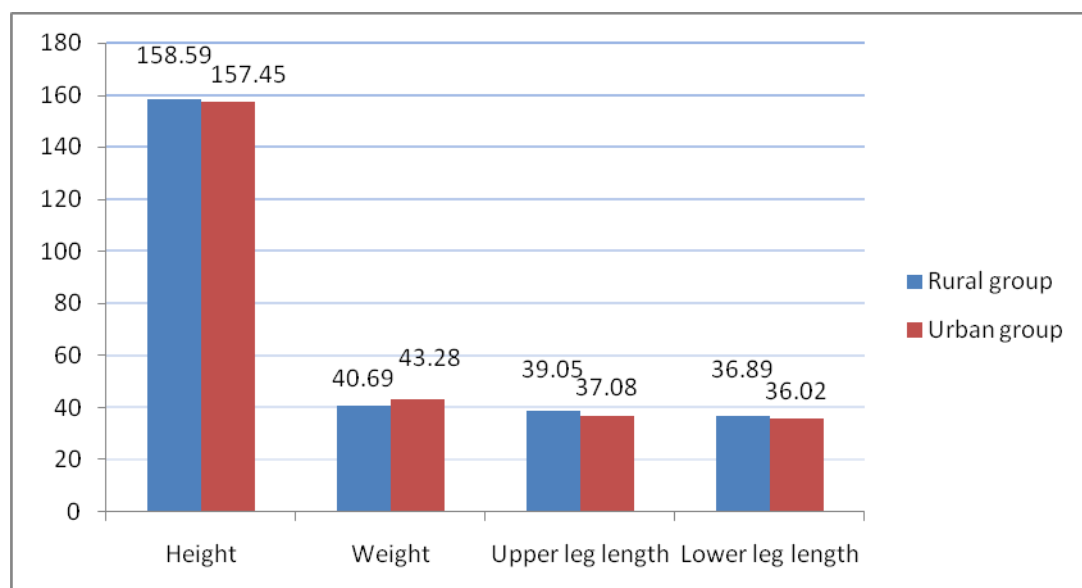


Fig-1

Table -2

Mean comparison of Hip, Chest, Thigh and Upper arm circumference between urban and rural high school Football players

Test item	Rural		Urban		Mean difference	't' value
	Mean	SD	Mean	SD		
Hip circumference	66.17	2.54	68.67	2.30	2.5	11.36 *
Chest circumference	65.96	2.68	67.44	2.83	1.48	5.92*
Thigh circumference	38.16	2.79	39.64	2.62	1.48	6.17*
Upper arm circumference	19.28	2.45	19.35	2.47	0.07	1.18

*Significant at 0.05 level able value of $t(df=118)=1.980$

Table -2 indicated that there are significance differences of selected Anthropometric measurements that are Hip circumference, Chest circumference, Thigh circumference, except Upper arm circumference between rural and Urban school football players because calculated 't' value of 11.36, 5.92, 6.17 respectively are higher than the Tabulated 't' value of 1.980 at 0.05 level of confidence for 118 degree of freedom. But there is no significant difference found between rural and Urban school football players because calculated 't' value of 1.18 is less than tabulated value of 1.980 at 0.05 level of confidence for 118 degree of freedom. The mean differences have been shown graphically in Fig.2

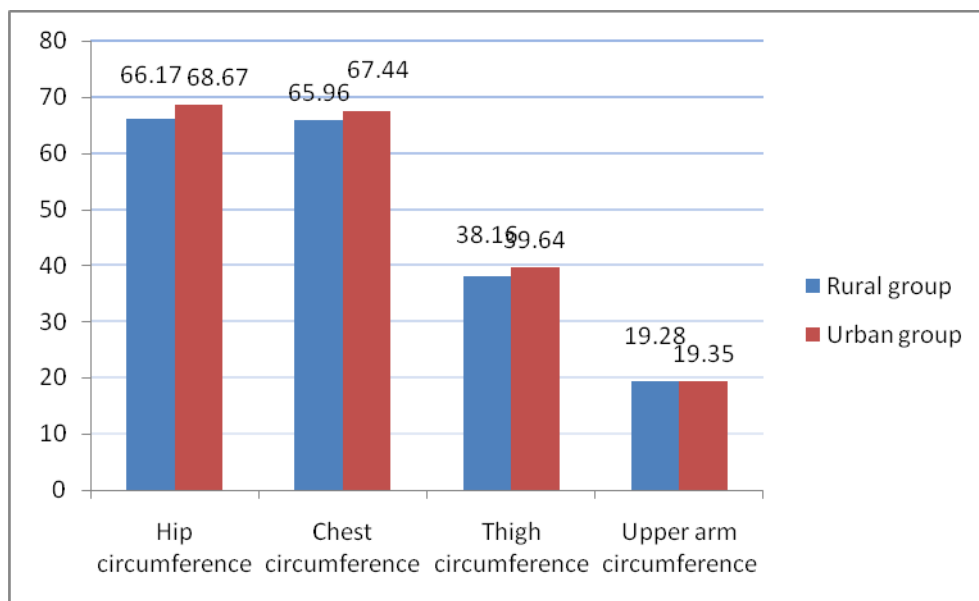


Fig-2

Conclusion

From this study the researcher found that there was significance differences of selected Anthropometric measurements that are Standing height, Body weight, Upper leg length and Lower leg length, Hip circumference, Chest circumference, Thigh circumference, between rural and Urban school football players except Upper arm circumference.

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