



ANALYTICAL STUDY OF SELECTED MOTOR FITNESS VARIABLES OF RURAL AND URBAN SECONDARY SCHOOL FOOTBALLERS

Tarun Biswas

RESEARCH ARTICLE



Author Details:

Assistant Professor (B.P.Ed.)
Nikhil Banga Sikshan Mahavidyalaya,
Bishnupur, Bankura,
West Bengal, India

Corresponding Author:

Tarun Biswas

DOI:

<https://doi.org/10.70096/tssr.250305031>

Abstract

The main aim of this study was to find out the differences of selected motor fitness variables between urban and rural Secondary 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. In this study following Motor Fitness Variables were taken into consideration, Agility, Muscular strength (leg), Speed, Abdominal muscular strength, Static Balance. The data collected for each variable administering their respective tests. The selected variables were analysed by using independent 't' test. The result of the study found that there is significance difference of motor fitness variable between urban and rural school footballers.

Keywords: *Motor Fitness, Rural and Urban footballers*

Introduction

During the modern times performance in sports not only demands systematic training to develop physical, physiological variables and technical aspects of sports but also demands training and motor components for success in this field. Fitness is that state which characterizes the degree to which the person is able to function. Fitness is an individual matter. It implies the ability of each person to live most effectively with his potential. Ability to function depends upon physical, mental, social and emotional components of fitness.

Motor fitness is a term that describes an athlete's ability to perform effectively during sports or other physical activity. An athlete's motor fitness is a combination of five different components, each of which is essential for high levels of performance. Motor fitness, or motor physical fitness, refers to how an athlete can perform at his or her sport, and involves a mixture of agility, coordination, balance, power, and reaction time. All components of motor fitness are essential for competing at high level of performance. There are clear differences in the motor fitness of players depending on the position played on the field. The researcher was trying to find out the differences of selected motor fitness variables between urban and rural school footballers.

Objectives

An objective of this study was to find out the differences of selected motor fitness variables between urban and rural school footballers.

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 Motor Fitness variables between urban and rural school footballers.

Selection of Subjects

For the purpose of this study one hundred twenty Soccer Players were randomly selected as subjects i.e. Sixty (60) Soccer Players from rural areas and Sixty (60) Soccer Players from urban areas of selected from five (5) district in western region of West Bengal. In case of Twelve (12) rural and Twelve (12) urban subjects were selected from each district

Selection of Variables

After the review of literature, the following motor fitness variables were taken into consideration, Agility, Muscular strength (leg), Speed, Abdominal muscular strength, Static Balance.

Criterion measure

1. Agility was measured by shuttle run in second
2. Leg muscular strength was measured by standing broad jump and horizontal distance recorded in centimetres.
3. Abdomen strength was measured by sit-ups, total number of correctly executed sit-ups in one minute were recorded.
4. Speed was measured by 50 yard dash
5. Static balance was measured by Stork stand

Collection of Data

The data collected for each variable administering their respective tests. To ensure that the data collected were reliable, sufficient number of trials was given to each subject to perform their respective tests for each variable. The tests were explained to the subjects prior to their administration.

Result and Discussion

Data of the pertaining study was collected by above mention test and help of researcher. To determine the differences of Selected Motor Fitness variables 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 Agility, Leg Muscular strength, Speed urban and rural Secondary school Football players

| Test item | Rural | | Urban | | Mean difference | 't' value |
|-----------------------|--------|------|--------|------|-----------------|-----------|
| | Mean | SD | Mean | SD | | |
| Agility | 9.38 | 2.16 | 9.81 | 2.15 | 0.43 | 2.15* |
| Leg Muscular strength | 168.42 | 7.72 | 166.88 | 7.88 | 1.54 | 2.20* |
| Speed | 7.78 | 0.70 | 7.67 | 0.71 | 0.11 | 36.66* |

*Significant at 0.05 level able value of t (df=118) =1.98

It is evident from table-1 that significant difference exists between the mean scores of Rural & Urban secondary school football Players in relation to Agility, Muscular strength (leg) and Speed since obtained t-value 2.15, 2.20 and 36.66 respectively were found greater than the tabulated value of t 0.05 (118df) 1.98. The mean differences have been shown graphically in Fig.1.

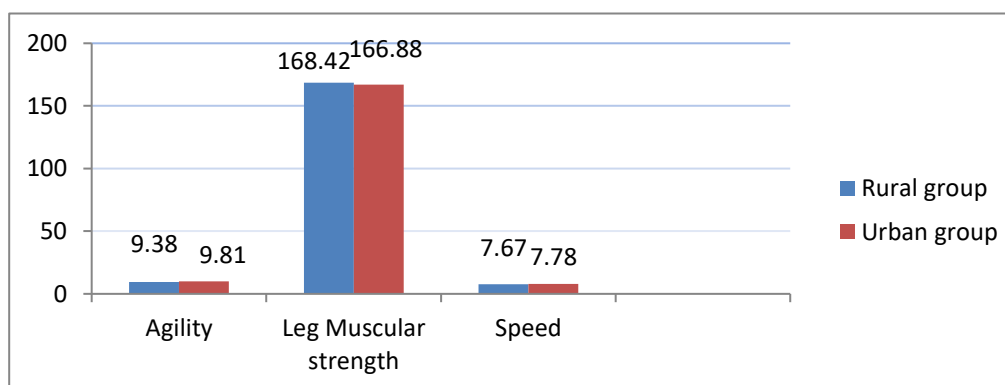


Fig-1

Table -2
Mean comparison of Abdominal Muscular Strength & Stork Stand between Urban and Rural Secondary school Football players

| Test item | Rural | | Urban | | Mean difference | 't' value |
|-----------------------------|-------|------|-------|------|-----------------|-----------|
| | Mean | SD | Mean | SD | | |
| Abdominal Muscular Strength | 27.5 | 5.28 | 26.06 | 5.56 | 1.44 | 2.88 * |
| Stork Stand | 23.83 | 5.96 | 22.76 | 5.83 | 1.07 | 1.99* |

*Significant at 0.05 level able value of t (df=118) =1.98

Table -2 reveals that there are significant difference exists between the mean scores of Rural & Urban secondary school football Players in relation to Abdominal Muscular Strength & Stork Stand since obtained t-value 2.88, and 1.99 respectively were found greater than the tabulated value of t 0.05 (118df) 1.98. The mean differences have been shown graphically in Fig.2.

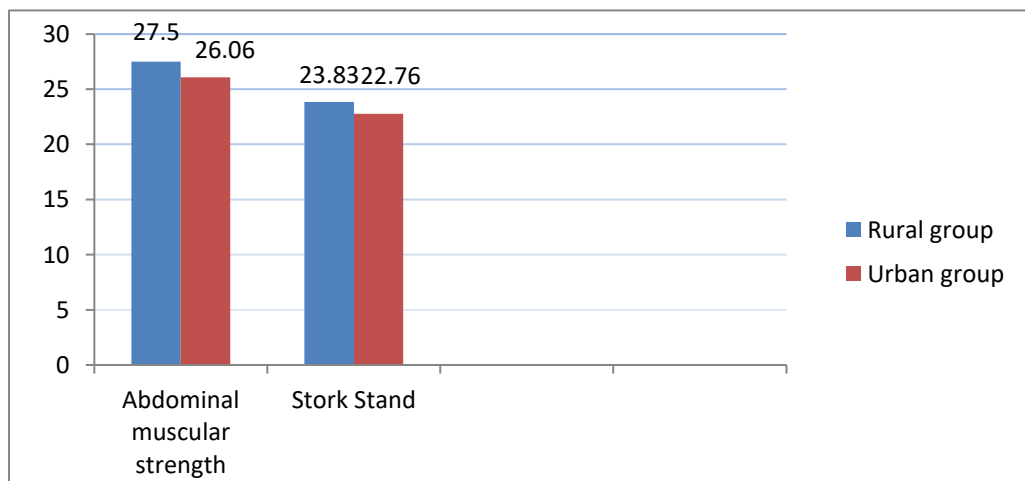


Fig-2

Conclusion

From this study the researcher found that there was significance differences of selected motor fitness variables that are Agility, Leg muscular strength, Speed, Abdominal muscular strength and Stork stand between rural and Urban Secondary school football players.

Acknowledgment: No

Author's Contribution: Tarun Biswas: Data Collection, Literature Review, Methodology, Analysis, Drafting, Referencing

Funding: No

Declaration: Not Applicable

Competing Interest: No

References

1. Barrow, Mcghee. A Practical approach to measurement in Physical Education, 1989, 119-120.
2. Kamlesh ML, Sangral MS. Principles & History of Physical Education (Ludhiana: Prakash Brothers Education Publishers), 1980, 67.
3. Micheli L. Strength training in the young athlete. Competitive sports for children and youth: an overview of research and issues. Champaign: Human Kinetics. 1988, 99-105.
4. Dr. Ajmer Singh & et.al. "Essentials of physical education", Kalyani publisher, New Delhi, 2003.
5. Debender Kansal, Test and measurement in sports and physical education", DVS publication, New Delhi, 2003

Publisher's Note

The Social Science Review A Multidisciplinary Journal remains neutral with regard to jurisdictional claims in published data, map and institutional affiliations.

©The Author(s) 2025. Open Access.

This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>