

A Comparative study of Physical Fitness between Rural and Urban High School Girls of Pulwama District.

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ABSTRACT

The aim of this study was to compare performance related physical fitness among high school girls of Pulwama district in which a total of 400 girls; 200 rural and 200 urban girls were recruited through random sampling method. In this study five performance related physical fitness components i.e., strength, speed, agility, endurance & leg power was measured by applying tests like modified push ups, 50 yard dash, shuttle run, 600 yard runwalk & standing broad jump respectively. The researcher tried to create awareness regarding physical fitness among rural and urban girls by having healthy discussions with the subjects after taking the measurements. It was concluded that rural girls outshined in speed, endurance & agility while as urban girls excelled in strength and leg power.

Keywords: Physical Fitness, Speed, Agility, Strength, Endurance, Power

INTRODUCTION

The world greatest thinkers have stressed the importance of physical fitness in leading a productive and meaningful life, the Greek philosopher Aristotle stated that the body is the temple of soul and to reach harmony among body, mind and spirit a human being must be physically fit. Many scientific students in the fields of physical education and sports have proved beyond any doubt that on exercise programme or regular physical activity improves ones physical fitness level and ability to meet variety of physical tasks in day-to-day life physical fitness comprises of many components such as strength, endurance, agility co-ordination, flexibility etc. Fitness means the ability of an individual to live a happy and well-balanced life. Physical Fitness is the capacity of the heart, blood vessels, lungs and muscles to function at optimal efficiency (Bucher and Williams 1985). Basically fitness means being in good physical condition and able to function at one's best level. Total fitness for living involves spiritual, mental, emotional and social as well as physical qualities (Charles A. Bucher 1975).

Total Fitness is the watchwords of today and basic to the total fitness demanded by society is the developmental and maintenance of physically fit man. This is a constant need, which is not altered as man evolves mentally, morally, and socially (Indira Gandhi 1982). Physical Fitness is a term used to refer to the functional capacity of an individual to perform certain kinds of tasks requiring muscular activity. Physical Fitness is the ability of the body to adopt and recover from strenuous exercise. It is the relation of one's ability to work and play with vigor and pleasure without undue fatigue and with sufficient energy for unforeseen emergencies. Physical fitness is to ability to last, to bear up and to preserve under difficult circumstances where an unfit person would give up. It is the opposite of being fatigued from ordinary efforts (Miller and Allen 1982). Physical Fitness is not only the most important key to a healthy life, but also the basis for dynamic and creative life (Sharker 1984). Physical Fitness is necessary for every individual to be physically fit to perform their daily work with ease and to take part in various activities effectively. Everyone should be fit enough through participation in physical activities to develop the different physical fitness components (Safrit 1986).

The purpose of the study was to compare the physical fitness between rural and urban high school girls of Pulwama district. This study will help to create awareness of physical fitness. This study will help to suggest the physical education programme to achieve the object of students. This study will motivate rural and urban high school girls to participate in physical activities.

2. Methodology

The main purpose of this study was to compare the physical fitness between rural and urban high school girls of Pulwama district. In order to achieve this purpose tests were conducted on 400 high school girls of Pulwama district in total and 200 each from rural and urban high schools.

2.1. DESCRIPTION OF THE TESTS

To collect the data following tests were conducted.

- | | |
|-----------------------------|-----------|
| 1. 50 yard dash | Speed |
| 2. Modified push ups | Strength. |
| 3. 600 yard run and walk | Endurance |
| 4. Shuttle run (4 X 10 mts) | Agility |
| 5. Standing broad jump | Leg power |

2.1.1. 50 YARD DASH

Purpose: To measure speed.

Equipment: Stop watch, and marking powder

Procedure: At the start, the subject stood behind the starting line as soon as the command 'Go' was given, the subject ran across the finish line.

Scoring: The score was recorded to the nearest (second) tenth of a second.

2.1.2. MODIFIED PUSH UPS

Purpose: To measure shoulder strength

Equipment: Stool and stop watch.

Procedure: The push up test for girls is executed from a stool, 13 inches high by

20 inches long by 14 inches wide. It was placed on a floor about six inches from a wall. The subject grasp the outer edges at the nearest comers of stool and assume the front leaning rest position with the balls of the feet resting on the floor and with body and arms forming a right angle.

The test is to lower the body so that the upper chest touches the near edge of the stool, then raise it to a straight arm position as many times as possible. In performing the test, the subject's body should be held straight throughout. If the body sways or arches or if the subject does not go completely up, half credit is given, up to 4 half credits.

Scoring: One point was given each time when the subject completed a modified push-ups only one trial was permitted.

2.1.3. 600 YARD RUNWALK

Purpose: To measure endurance.

Equipment: Track or area marked for 600 yard and a stop watch.

Description: subject uses a standing start at the signal, the subject starts running

600 yard distance. The running may be interpreted with walking. It is possible to have a dozen pupils run at one time by having the pupils pair off before the start of the event. Each pupil listens for and remembers his partner's time as the pupil cross the finish.

Rule: Walking is permitted but the subject is to cover the distance in the shortest possible time.

Scoring: Record in minutes and seconds.

2.1.4. SHUTTLE RUNS (4 x 10 mts)

Purpose: To measure Agility.

Equipment: Steel tape, two stop watches and marking powder.

Description: The subjects stood behind the line when command given 'go' the subject starts to run towards the opposite line (with distance of 10 mts. line) and touch the line with hand soon taken turn towards the starting line then again touch that line soon taken twin run towards the same lines. Time Keeper starts his watch along with command 'go' and stops when the subject touches the starting line.

Scoring: Time was considered to rear half second.

2.1.5. STANDING BROAD JUMP

Purpose: To measure leg power.

Equipment: A measuring tape and landing pit.

Procedure: The subject stood behind a take off line with his feet several inches apart. He then jumped forward by simultaneously extending his knees and swinging his arms forward. Measurement of the jump was made from the nearest imprint made by jumper on landing to the take-off point. Distance was recorded in centimeters.

Results and Discussion

The purpose of this study was to compare the physical fitness of the rural and urban high school girls of Pulwama district. To achieve this purpose, the data collected in this study were put to statistical analysis and the results of which are presented in this chapter.

For this study, 400 subjects in all, 200 rural and 200 urban high school girls of Pulwama district were selected. They were subjected to five different tests to assess five physical fitness components. The tests were conducted on standard procedure. Mean, standard deviation and 't' values of all five components are presented in different tables.

Table -1. Showing the mean value + standard deviation and 't' value of speed (50 Yard Dash), Strength (modified push-ups), Endurance (600 yard Run/Walk), Agility (Shuttle run 4 x 10 mts), and Leg power (standing broad jump).

S. No.	Physical Fitness Components	Name of the Group	Sample Size	Mean S.D.	't' value
1.	Speed	Rural	200	12.48 + 1.5860	2.2483*
		Urban	200	12.76 + 1.0865	
2.	Strength	Rural	200	6.40 + 1.7274	2.4076*
		Urban	200	6.74 + 0.01696	

3.	Endurance	Rural	200	2.82 + 0.4779	2.3587*
		Urban	200	2.93 + 0.4799	
4.	Agility	Rural	200	19.93 + 1.3998	2.3203*
		Urban	200	20.21 + 1.3799	
5.	Leg Power	Rural	200	157.07+ 28.5252	2.1008*
		Urban	200	161.63+ 28.9650	

* Significant at 0.05 level.

Table — 2: Showing the Mean value + Standard deviation and ‘t’ score of the Speed (50 Yard Dash).

S. No.	High School Girls	Sample Size	Mean	S. D	‘t’ Value
1.	Rural	200	12.48	1.5860	2.2483*
2.	Urban	200	12.76	1.0865	

* Significant at 0.05 level.

Table-2 shows the mean value and standard deviation of the two groups i.e., rural and urban high school girls with ‘t’ score. The ‘t’ score on calculation is 2.2483 which is greater than table value i.e., 1.9719 and is significant at 0.05 level. The result is in agreement with the hypothesis of the researcher.

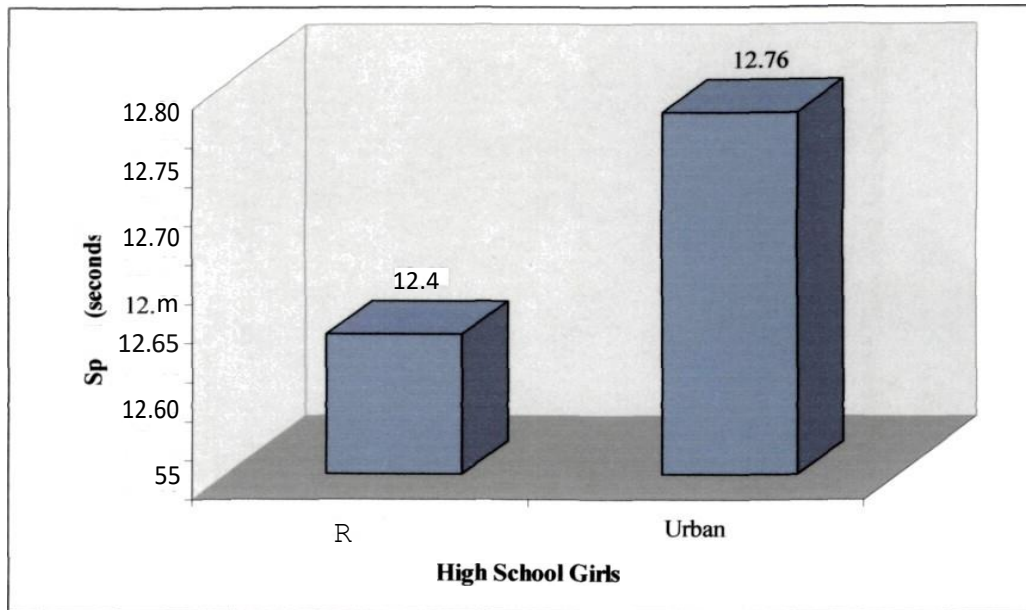


Fig-1. Graphical representation of mean value of Speed (50 Yard Dash).

Table — 3: Showing the Mean value Standard deviation and ‘t’ score of the Strength (Modified Push-Ups).

S. No.	High school Girls	Sample Size	Mean S.D	‘t’ value
1.	Rural	200	6.40 1.7274	2.4076*
2.	Urban	200	6.74 0.01696	

* Significant at 0.05 level.

Table-3 shows the mean value and standard deviation of the two groups i.e., rural and urban high school girls with ‘t’ score. The ‘t’ value on calculation is 2.4076 which is greater than table value i.e., 1.9719 and is significant at 0.05 level. The result is in agreement with the hypothesis of the researcher.

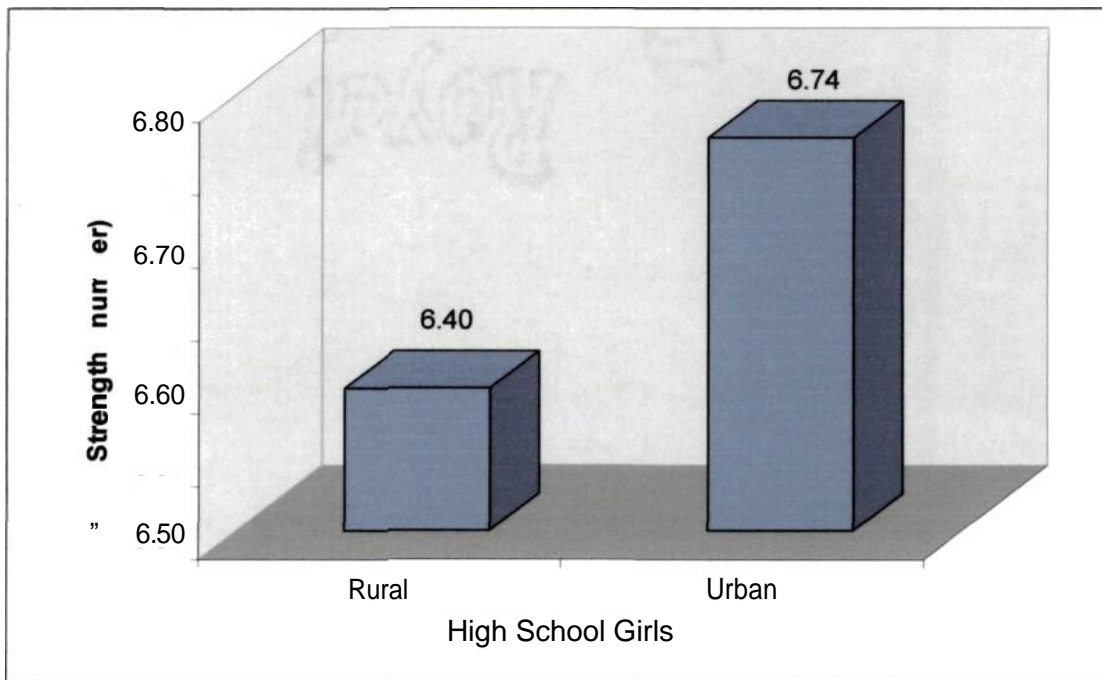


Fig 2. Graphical representation of mean value of Strength (Modified Push Ups).

Table 3: Showing the Mean value Standard deviation and 't' score of the Strength (Modified Push-Ups).

S. No.	High school Girls	Sample Size	Mean	S.D	't' value
1.	Rural	200	6.40	1.7274	2.4076*
2.	Urban	200	6.74	0.01696	

* Significant at 0.05 level.

Table-3 shows the mean value and standard deviation of the two groups i.e., rural and urban high school girls with 't' score. The 't' value on calculation is 2.4076 which is greater than table value i.e., 1.9719 and is significant at 0.05 level. The result is in agreement with the hypothesis of the researcher.

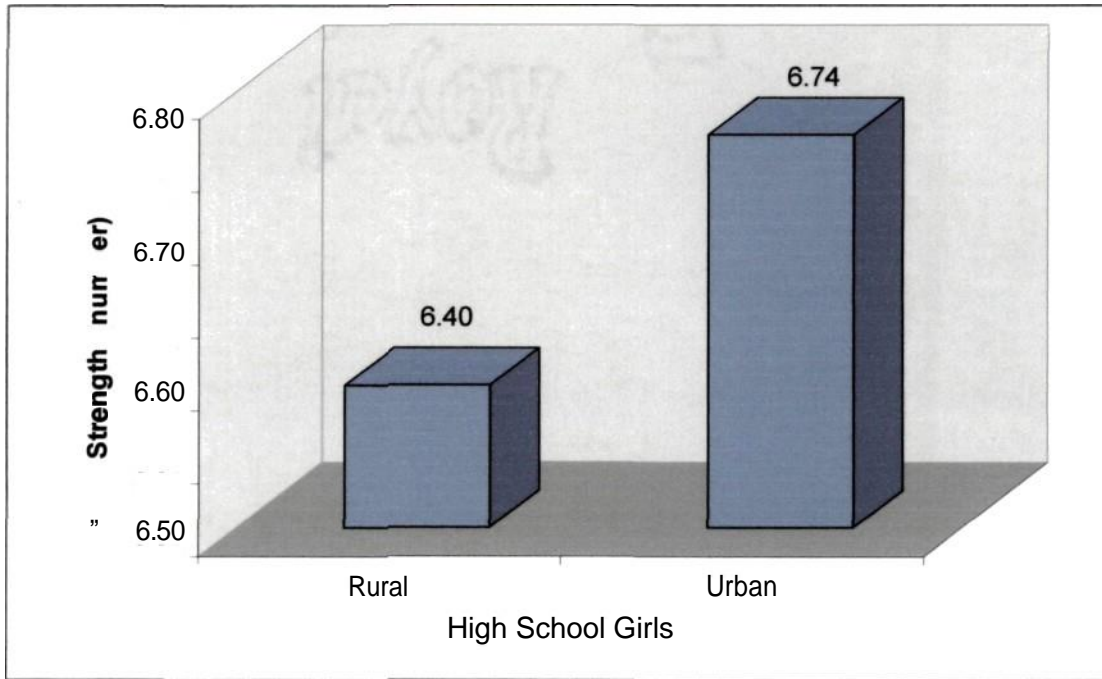


Fig 2. Graphical representation of mean value of Strength (Modified Push-Ups).

Table: Showing the Mean value + Standard deviation and 't' score of the Endurance (600yard Run/Walk).

S.No.	High school Girls	Sample Size	Mean	S.D	't' value
1.	Rural	200	2.82	0.4779	2.3587*
2.	Urban	200	2.93	0.4799	

* Significant at 0.05 level.

Table-4 shows the mean value and standard deviation of the two groups i.e., rural and urban high school girls with 't' score. The 't' value on calculation is 2.3587 which is greater than table value i.e., 1.9719 and is significant at 0.05 level. The result is in agreement with the hypothesis of the researcher.

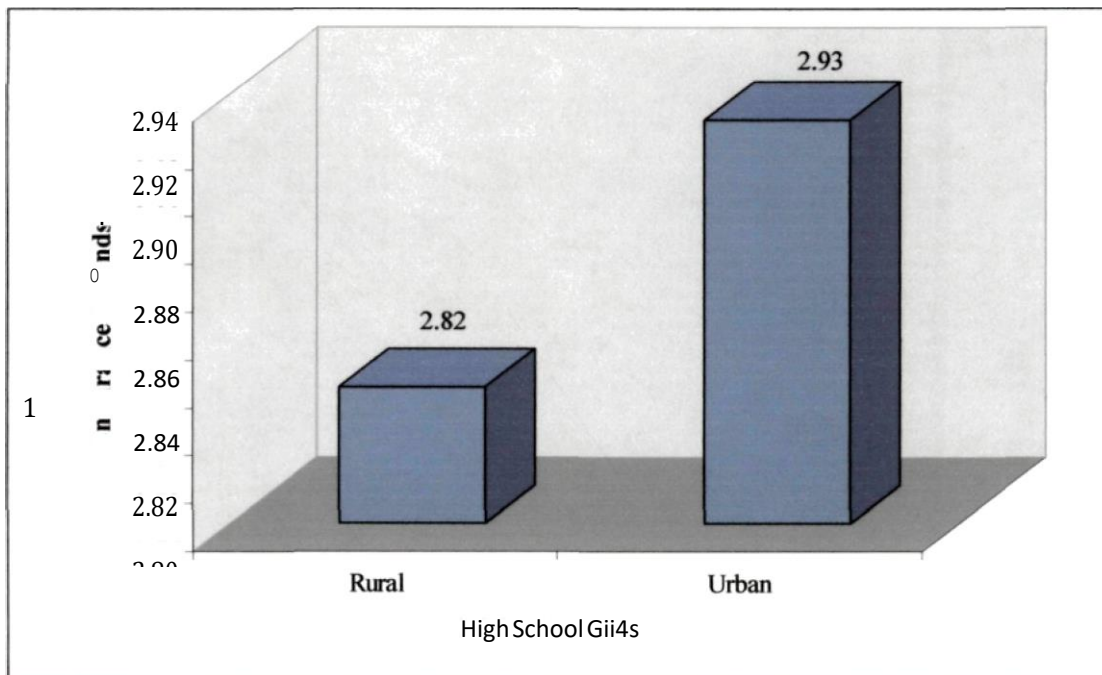


Fig3. Graphical representation of mean value of Endurance (600yard Run/Walk).

Table-5: Showing the Mean value + Standard deviation and 't' score of the Agility (Shuttle Run 4 x 10 mts).

S. No.	High school girls	Sample Size	Mean Standard deviation	't' value
1.	Rural	200	19.93 1.3998	2.3203*
2.	Urban	200	20.21 1.3799	

* Significant at 0.05 level.

Table-5 shows the mean value and standard deviation of the two groups i.e., rural and urban high school girls with 't' score. The 't' value on calculation is 2.3203 which is greater than table value i.e., 1.9719 and is significant at 0.05 level. The result is in agreement with the hypothesis of the researcher.

Table 6: Showing the Mean value Standard deviation and ‘t’ score of the Leg Power (Standing Broad Jump).

S. No.	High school girls	Sample Size	Mean S.D	‘t’ value
1.	Rural	200	157.07 28.5252	2.1008*
2.	Urban	200	161.63 28.9650	

* Significant at 0.05 level.

Table-6 shows the mean value and standard deviation of the two groups i.e., rural and urban high school girls with ‘t’ score. The ‘t’ value on calculation is 2.1008 which is greater than table value i.e., 1.9719 and is significant at 0.05 level. The result is in agreement with the hypothesis of the researcher.

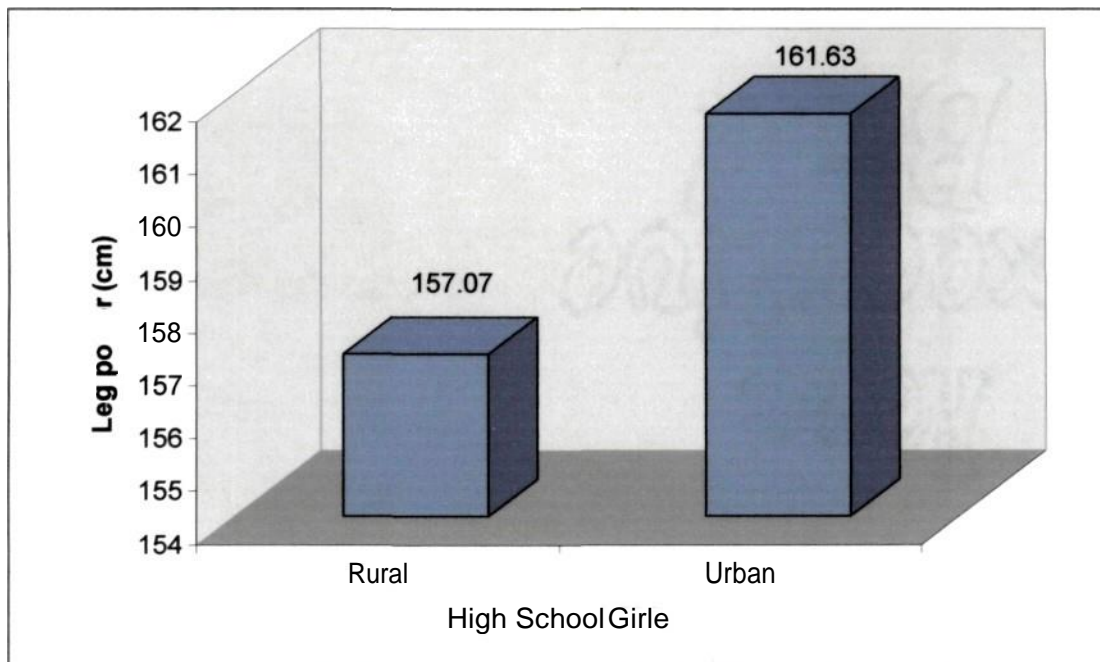


Fig-5. Graphical representation of mean value of Leg Power (Standing Broad)

The purpose of this study was to evaluate and compare the selected physical fitness components of rural and urban high school girls of Pulwama district. To achieve this purpose, data were

conducted on 200 Rural and 200 Urban High School girls of Pulwama district. The subjects selected were tested with five tests, which measure five components of physical fitness. The data collected were analyzed by calculating 't' value to find out the difference in physical fitness between rural and urban high school girls of Pulwama district.

Conclusion

The purpose of this study was to evaluate and compare the selected physical fitness components of rural and urban high school girls of Pulwama district. To achieve this purpose, data were conducted on 200 Rural and 200 Urban High School girls of Pulwama district. The subjects selected were tested with five tests, which measure five components of physical fitness. The data collected were analyzed by calculating 't' value to find out the difference in physical fitness between rural and urban high school girls of Pulwama district. Following conclusions were drawn from the results of this study: Rural girls are better in speed, endurance and agility. Urban girls are superior in strength and leg power.

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