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## A comparative study of physical fitness of rural and urban high school girls of Kashmir (With special reference district Budgam)

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### Abstract

The word "Physical Education", Refers to various bodily characters such as physical strength physical development physical health and physical appearance. It refers to the body as a contrasted to mind physical education should aim to improve the mass of students and give them as much health struggle and stamina as possible to unable physical education is the process by which changes on the individual or brought about through his movement experience physical education is the some of the changes in the individual caused by experience centered in motor ability. The purpose of the study is found out the A Comparative Study on Physical Fitness of Rural and Urban High School Girls. This study will help coaches and physical education teachers in selecting the good players. This will help physical education teachers and coaches in preparing training program. This will lead to success in future planning. This will reveal which of the two groups possess better physical education. The result of the study will help to students to participate in sports and game. The result of the study will give the clear idea about physical fitness of the rural and urban Girls.

**Keywords:** factors affecting on students physical fitness, findings and conclusion

### 1. Introduction

The objective of physical education concern with building up to physical power throw the growth and development of various systems like respiratory system digestive system in body participation in good program of physical education promotion of bodily growth strength endurance structurally and functionally. Physical education through physical activities in the process of human behavior the body is the basis of the function of the Muscular Strength so prevalent in our complicated modern living participation in organized physical education program will release these strains and tension to a greater extent. The term physical fitness is included in many familiar test batteries commonly uses in the schools in many cases the inclusion of fitness in such titles is most unfortunate error and one that logically could account at least in part for the current apathy of some people toward total personal fitness. This is not an indictment of physical fitness test batteries most of the batteries are excellent and include tests that do have some definite value but it is our feeling that many of tests in these batteries are not actually of physical fitness. Below performance to standardized tests especially on such items as speed and agility is not necessary indicative of poor physical fitness. If functional fitness is an individual matter than physical fitness tests are more relative than absolute and these are no such thing as reasonably healthy person who cannot improve his physical fitness level.

### 1.1 Review of literature

Research scholar has made sincere efforts to collect the literature related to this study and found some reference to similar studies which have been reviewed and produced in this chapter.

Brongder (1973) made a comparison of physical fitness and antipoetic measures of preadolescent maximum American and Anglo American males. Three hundred Maxico American males between the age of 8 and were selected as subjects. AAHPER youth fitness test physical fitness 13 anthropometrics measurements were taken.

They were standing height sitting height weight shoulder width. The finding revealed significant difference between the Mexican American and Anglo-American males in certain physical fitness items were significantly higher for the Mexican-American males.

Dahl (April 1971) administered the AAPER youth fitness test on 400 Negro and white boys from the same sexes schools district. All tests data was collected during spring semester of the 1969-70 St school years. It was found that the Negro boys obtained a higher mean score than the white boys on gross body co-ordination (Soft ball throw) the difference was significant at the 0.05 level of confidence. Negro boys scored significantly higher than white boys on muscular explosiveness (Standing broad Jump). A larger mean difference was obtained at the 01. level of confidence. Hofmann compared the effectiveness of four selected program of physical education in the development of physical fitness and general motor ability. The conclusion derived from study shows that physical fitness and general motor ability of student can be improved by special training by combination of isometric and isotonic exercised.

### **Siddique**

Conducted "A study on elements of physical fitness of the offence and defense of football player of Madras city" The result of this study was that defensive players have scored significantly higher than the offensive players in dynamic strength of hands. Static strength and equilibrium the offensive players were significantly faster in dynamic strength of legs then defensive players. The offensive players were significantly faster in speed and change of direction (agility).

### **Mall, Mall and Paul**

Investigated the physical fitness of high school students of D.A.V. Schools and also found out the relationship of their physical fitness of socio-psychological variables. The results showed that the physical characteristics of height and weight of three selected group (13, 14 and 15 years) with high academic achievements did not show any significant differences.

### **Objective**

To know about the significant difference between Urban and Rural high school girls with respective to speed endurance agility strength and flexibility.

### **Hypothesis**

It was hypothesized that the rural high school girls will be better than the urban high school girls in most of the physical fitness components.

### **Definitions of Terms**

#### **Speed**

It is the capacity of an individual to perform successive movements of the same pattern at a fast rate.

"Speed may be defined as the capacity of the individual to person successive movements of the same pattern at fast rate".

#### **Endurance**

Endurance is the ability to keep on exerting force against a resistance. Cardiovascular endurance relates to the whole body. Local muscle endurance relates to specific limbs or muscle groups.

Endurance is the result of physiological capacity of the individual to strain movement over a period of time.

Endurance can be defined as the ability to do sports movement with the deserved availability and speed under conditions of fatigue. The resistance against fatigue during a continuous high stress "Endurance is the physiological condition manifested by the length of time are can persist in any activity.

#### **Strength**

Strength is the force that a muscle or muscle group can exert against a resistance in one maximum effort.<sup>14</sup>

"Strength can be defined now much weight can you lift one time"

#### **Agility**

Agility is the capacity of an individual as measured by rate of change of his position in space. It is another component it was measured.

It is an important ability in any sports activity. According to the Johnson and Nelson agility may be defined as the Physical activity, which enables an individual to rapidly change body position and direction in a precise manner.

#### **Power**

Power is the capacity of the individual to bring into play maximum muscle contraction at the fastest fate of speed.

"Power is the ability to generate maximum force in minimum amount of time".

Power may be identified as the ability to release maximum force in the fastest possible time as is exemplified in the vertical jump, broad jump, shot put, and other movements against a resistance in a minimum of time.

### **Significance of the study**

1. This study would help to create awareness of physical fitness.
2. This study would help to suggest the physical education program to achieve the object of student.
3. This study will motivate to rural and urban high school girls to participate in physical activities.

### **Methodology**

The main purpose of this study was to compare the physical fitness between rural and urban high school girls of Kashmir District Budgam

In order to achieve this purpose test were conducted to 400 high school girls of Kashmir District Budgam in total and 200 each from rural and urban high schools.

### **Description of the tests**

To collect the data following tests were conducted.

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

#### **1. 50 Yard Dash**

**Purpose:** To measure speed.

**Equipment:** Stop watch, and marking powder

**Procedure:** At the start, the subjects to 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. 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 has placed on a floor about six inches from a wall. The subject grasp the outer edges at the nearest corners 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 modified push-ups only one trial was permitted.

## 3. 600 Yard RUN/WALK

**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.

## 4. Shuttle Run (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.

## 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.

### Analysis and interpretation of data

The purpose of this study was to compare the physical fitness of the rural and urban high school girls of Kashmir District Budgam. 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 Kashmir District Budgam 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  $\pm$  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), Leg power (standing broad jump).

S. No	Physical fitness Components	Name of the Game	Sample Size	Mean $\pm$ S.D.	't' Value
1.	Speed	Rural	200	12.48 $\pm$ 1.5860	2.2483*
		Urban	200	12.76 $\pm$ 1.0865	
2.	Strength	Rural	200	6.40 $\pm$ 1.7274	2.4076*
		Urban	200	6.74 $\pm$ 0.01695	
3.	Endurance	Rural	200	2.82 $\pm$ 0.4779	2.3587*
		Urban	200	2.93 $\pm$ 0.4799	
4.	Agility	Rural	200	19.93 $\pm$ 1.3998	2.3203*
		Urban	200	20.21 $\pm$ 1.3799	
5.	Leg power	Rural	200	157.07 $\pm$ 28.5252	2.1008*
		Urban	200	161.63 $\pm$ 28.9650	

\*Significant at 0.05 level

**Table 2:** Showing the Mean value  $\pm$  Standard deviation and 't' score of the Speed (50 Yard Dash).

S. No.	High school girls	Sample Size	Mean $\pm$ Standard deviation	't' value
1.	Rural	200	12.48 $\pm$ 1.5860	2.2483*
2.	Urban	200	12.76 $\pm$ 1.0865	

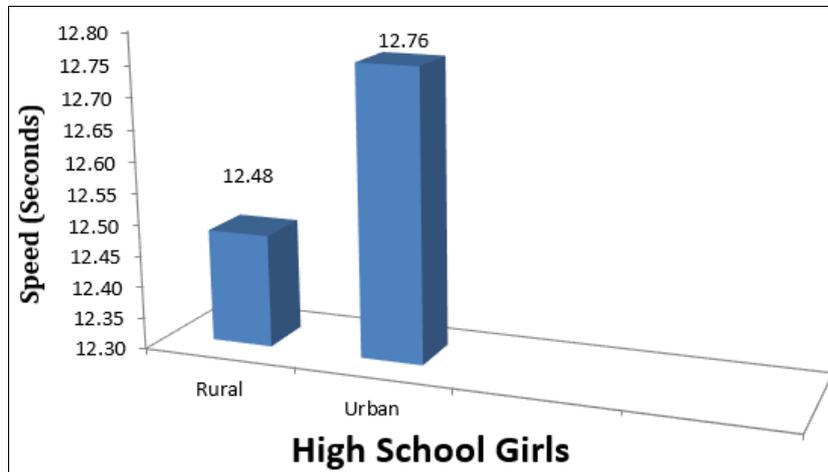
Significant at 0.05 level

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  $\pm$  Standard deviation and 't' score of the Strength (Modified Push-Ups).

S. No.	High school girls	Sample Size	Mean $\pm$ Standard deviation	't' value
1.	Rural	200	6.20 $\pm$ 1.7274	2.4076
2.	Urban	200	6.74 $\pm$ 0.01696	

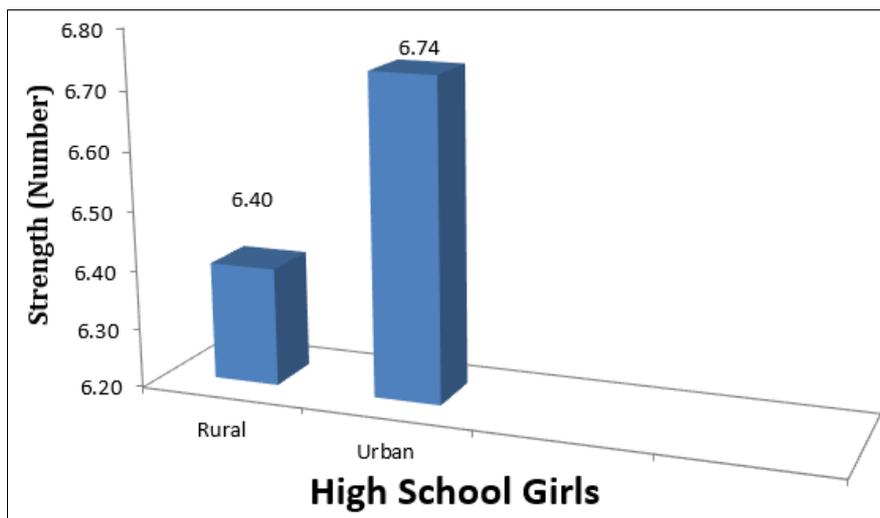
\* Significant at 0.05 level.

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' score 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 4:** Showing the Mean value  $\pm$  Standard deviation and W score of the Endurance (600yard Run / Walk)

S. No.	High school girls	Sample Size	Mean $\pm$ Standard deviation	't' value
1.	Rural	200	2.82 $\pm$ 0.4779	2.3587*
2.	Urban	200	2.93 $\pm$ 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' score 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.

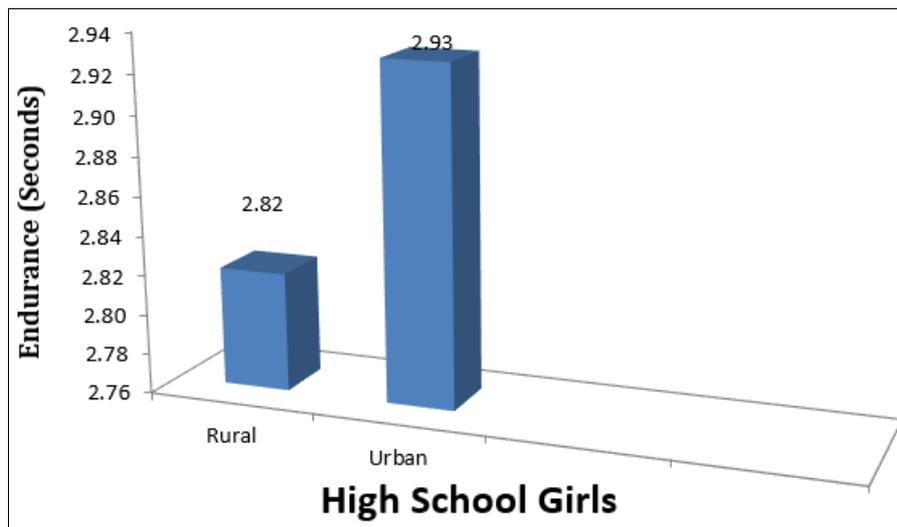


Fig 3: Graphical representation of mean value of Endurance (600yard Run/ walk)

Table 5: Showing the Mean value ± Standard deviation and 't' score of the Agility (Shuttle Run 4 x 10 mtrs)

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' score 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 ± Standard deviation	'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' score 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.

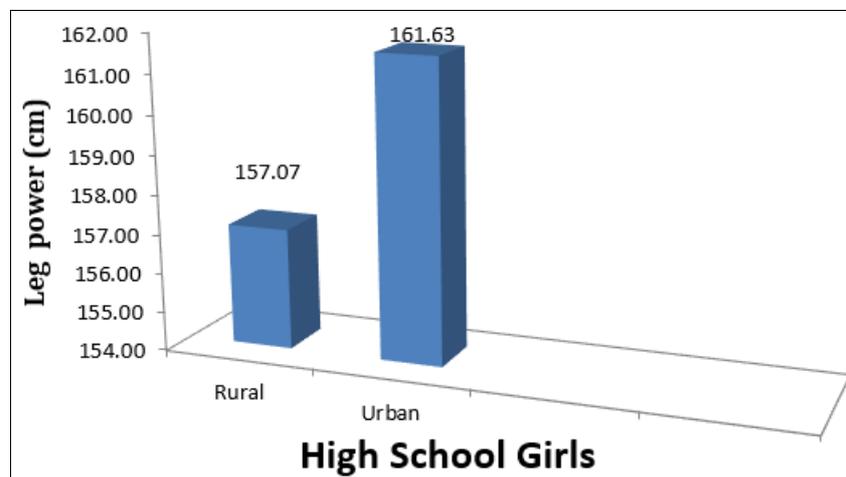


Fig 5: Graphical representation of mean value of Leg Power (Standing Broad Jump)

## **Summary, Conclusion and Recommendations**

### **Summary**

The purpose of this study was to evaluate and compare the selected physical fitness components of rural and urban high school girls of Kashmir district Budgam. To achieve this purpose, the investigation was conducted on 200 Rural and 200 Urban High School girls of Kashmir district Budgam. The subjects selected were tested with five tests, which measure five components of physical fitness. The data collected from these tests were analyzed by calculating 't' value to find out the difference in physical fitness between rural and urban high school girls of Kashmir district Budgam.

### **Conclusion**

In view of the limitation of this study already cited, the following conclusions were drawn from the results presented in the previous chapter.

- 1) Rural girls have better in speed, endurance and agility.
- 2) Urban girls are superior in strength and leg power.

### **Recommendations**

While conducting this study, the researcher felt certain avenues for further research.

- 1) The similar study may be conducted on boys.
- 2) Investigation may be made on the other variables such as physiological, anthropometric and psychological variables.
- 3) The study may be conducted on other age groups.
- 4) The same study may be conducted in other districts.

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