

COMPARISON OF MOTOR FITNESS STATUS OF RURAL & URBAN COLLEGE BOYS

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ABSTRACT

Concept of Physical fitness is as old as mankind. Keeping in mind the survival of fittest, down through the ages, only strong and agile people can defend invader, protect themselves and their property. It is a hard fact that physical fit people are in a better position to bear the rigorous and abnormal stress and strain than those who are less physical fit. The basic movements like running, jumping, climbing, throwing, lifting, etc. require specific physical attributes such as muscular strength, muscular endurance, cardio-respiratory endurance, strength balance and coordination. Prime objectives of the study were to study motor fitness status of rural and urban college boys and to compare motor fitness of rural and urban college boys. It was concluded that agility and speed of rural college boys is definitely better than urban boys.

Keywords: Physical, Fitness and Motor.

INTRODUCTION:

Clarke (1978) has exhorted that physical fitness is a vital biological need, the neglect of which handicaps the total effectiveness of the individual. Kansal (1996) defined the basic elements of physical fitness as muscular strength, muscular endurance, cardio-vascular endurance, free from obesity and flexibility.

Measurable elements of physical fitness are motor fitness and health related fitness. Motor fitness has ten components, viz; muscular strength, muscular endurance, cardio-vascular endurance, freedom from obesity, flexibility, power, speed, agility, balance and reaction time.

OBJECTIVES:

1. To study motor fitness status of rural and urban college boys.
2. To compare motor fitness of rural and urban college boys.
3. To compare leg strength of rural and urban college boys.
4. To compare arm and shoulder strength of rural and urban college boys.
5. To compare agility and speed of rural and urban college boys.

HYPOTHESES:

1. The rural college boys would be more efficient than urban college boys in motor fitness.
2. The rural college boys would be more efficient than urban college boys in leg strength.
3. The rural college boys would be more efficient than urban college boys in arm and shoulder strength.
4. The rural college boys would be more efficient than urban college boys in agility and speed.

Motor Fitness:

Motor fitness is ability to perform efficiency basis motor skills involving such element as power, agility, speed and balance.

Muscular strength: (Leg, Arm and Shoulder)

Maximal contraction power of the muscles is known as muscular strength of that particular organ. It is tested with the help of dynamometers which measure the amount of force exerted in, an effort by a particular group of muscles.

Agility: The speed with which an individual may change his body positions or fastness in changing directions while moving is known as agility.

Speed: The rapidity of muscle movement or the rate of change of body movement to attain maximum distance within minimum time, is muscular speed.

DESIGN OF THE STUDY:

Descriptive method of research was used in the present study. Total 70 students were taken for the study. 35 students were taken from rural background and 35 students were taken from urban background. The sample of rural and urban students was drawn randomly. t-ratio technique was employed to compare the rural and urban sample.

TOOLS:

Barrow three item General Motor Ability Test (1954) was used for collecting data. This test battery has the following three test items:-

1. Standing Broad Jump (for leg strength).
2. Zig-Zag Run (for agility & speed).
3. Medicine Ball Put (for arm & shoulder strength).

TEST ADMINISTRATION:

The three items were conducted in an athletic field area.

Test Item (1) Standing Broad Jump: This test measures the power of legs in jumping horizontal distance and may be applied to children of both sexes aged seven years and above.

Equipment: Floor, mat or long jump may be used, measuring tape, marking tape / chalk.

Fig. 1 Illustration of standing broad jump

Administration: A demonstration of standing broad jump was given to subjects to be tested. The subject was then asked to stand behind the starting line with the feet parallel to each other. He was instructed to jump as farthest as possible by bending knees and swinging arms to take off for the broad jump in the forward direction (as shown in the fig. 1). The subject was given three trials.

Scoring: The distance between the starting line and the nearest point of landing provides the score of test. The best (maximum distance) trial was used as the final score of the test.

Test Item (2) Zig Zag Run: This test item measures primarily agility and secondarily the speed. The subject was given demonstration about the course of Zig Zag running as illustrated in Fig.2. Then he was instructed to take the standing start position on the signal ready and to start running on the signal 'Go' and that three laps were to be run and fast run was to be continued even after the finish line so as to slow down only after crossing the finish line.

After the signal ready? Go!, the subject began the zig zag run, the timer started the stop watch. As soon as the runner crossed the finish point (F) after the third round, the timer stopped the watch.

Scoring: The final score was the time taken to run the three rounds of figure-of-eight.

Test Item (3) Medicine Ball Put: This test measures primarily arm and shoulder girdle strength and secondarily power, agility, arm and shoulder girdle coordination, speed and balance.

Administration: Before starting the test, the subjects were given following instructions. “The medicine ball is not to be thrown but to be put as is demonstrated. The subject is to stand between the two restraining lines as in fig.3 and the ball is to be put straight down the course. Each subject is to take three trials; fouls count a trial. However, in case of three continuous or more fouls the subject will be asked to reattempt until he makes a fair put”.

After giving above instructions, the event was explained by giving a live demonstration. Then a subject was asked to take a position in the throwing area and put the medicine ball as explained and demonstrated. He was given three trials.

Scoring: The maximum distance out of three trials of putting the medicine ball was the final score.

STATISTICAL TECHNIQUE:

To compare or to determine the significant difference between the mean score of rural and urban school boys on motor fitness test, t-ratio technique was employed.

ANALYSIS AND INTERPRETATION OF DATA:

Score of rural and urban college boys on various variables of motor ability was analyzed by using t-ratio technique.

Table.1 showing Mean and Standard Deviation of Rural college boys on variable of motor fitness.

Sr. No.	Variable	Units	Mean	Standard Deviation
1	Standing Broad	Inches	86.33	0.98

	Jump (SBJ)			
2	Zig- Zag Run	Seconds	23.59	0.25
3	Medicine Ball Put	Feet	34.6	10.9

Table.2 showing Mean and Standard Deviation of Urban group on variable of Motor Fitness.

Sr. No.	Variable	Units	Mean	Standard Deviation
1	Standing Broad Jump (SBJ)	Inches	80.50	17.5
2	Zig- Zag Run	Seconds	25.30	0.83
3	Medicine ball Put	Feet	29.87	2.6

From Table no. 1 and Table no. 2 it has been observed that the mean score of SBJ of rural group is higher than urban group. Mean score of time taken for Zig-Zag run is lower for rural boys as compared to urban. In Medicine ball put rural sample has higher score than urban sample.

So we can say that rural college boys are better motor fit than urban college boys. This may be due to more nutritional and pure diet, agricultural routine and pollution free surroundings which rural boys get as compared to urban college boys.

Table.3 showing Mean, SD and t-value of rural and urban college boys on the variable of Leg strength.

Sr. No	Group	Sample	Mean	SD	SED	t - value
1	Rural	35	86.33	0.98	2.96	1.96
2	Urban	35	80.50	17.5		

Table.3 shows that rural college boys have performed better than urban college boys. The difference between their means is significant at 0.05 and 0.01 level of confidence. We come to the conclusion that rural college boys have better leg strength than urban boys.

Table.4 showing Mean, SD and t-value of rural and urban college boys on the variable of arm and shoulder strength.

Sr. No.	Group	Sample	Mean	SD	SED	t - ratio
1	Rural	35	34.6	10.9	1.79	2.64
2	Urban	35	29.87	2.6		

Table.4 shows that mean score of rural boys is significantly higher than mean score of urban boys on the variable of arm and shoulder strength as the t-value comes out to be significant at 0.05 and 0.01 level of confidence.

So the conclusion is that rural college boys are significantly better than urban college boys in arm and shoulder strength.

Table.5 showing Mean, SD and t-value of rural and urban college boys on the variable of Agility and Speed.

Sr. No.	Group	Sample	Mean	SD	SED	t - ratio
1	Rural	35	23.59	0.25	0.13	13.15
2	Urban	35	25.3	0.83		

Table.5 shows that mean time taken by rural college boys is less than mean time taken by urban college boys to finish the Zig – Zag run test. The value of t-ratio also signifies this difference. Here, we conclude that agility and speed of rural college boys is definitely better than urban boys.

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