

COMPARATIVE STUDY OF SELECTED PHYSICAL FITNESS VARIABLE OF 15-16 YEAR BOYS OF URBAN AND RURAL AREA OF ROHTAK DISTRICT IN RELATION TO THEIR AGE

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ABSTRACT

The main purpose of this study was to compare the physical fitness variables of 15-16 years boys of urban and rural area in relationship of physical fitness with age. The respondents (20 from urban and 20 from rural) were selected for the study, AAPHER youth physical fitness test battery was administered on the subjects. 't' test was applied to analyses the data and the result showed that some significant difference were found between rural and urban area boys (according to their age) according to the study the respondents of rural areas are more strong in strength, more agile speedy and have better in endurance the urban area respondents.

INTRODUCTION

Physical fitness:

Physical fitness used in two close meanings: general fitness (a state of health and well being) and specific fitness (a task oriented definition based of the ability to perform specific aspects of sports or occupations).

Physical fitness is the capacity of the heart, blood vessels, lungs, and muscles to function at optimum efficient. In previous years, fitness was defined as the capacity to carry out the day's activities without undue fatigue. Automation, increase leisure time, and changes in life styles following the industrial revolution meant this criteria was no longer sufficient. Optimum efficiency is the key. Physical fitness is now defined as the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypokinetic diseases, and to meet emergency situations. Some performance related physical fitness components:-

Strength:

All the movements are caused by muscle contractions and thus strength assumes an extraordinary importance in achieving excellent performance.

Flexibility:

It may be defined as “the functional capacity of the joints to work through a full range of movement”. The length of the muscle, ligaments and tendons largely determines the amount of movement possible at each joint.

Agility:

Agility is the ability to change the body’s position, and requires a combination, speed, reflexes, and strength.

Endurance:

The working capacity and by the degree of resistance of the organism against fatigue and against the influence of unfavourable environmental conditions. It is also characterized by the pace of recovery after a tiresome activity.

Speed:

Speed is used in sports for such muscle reactions that are characterize by maximally quick alternation of contraction and relaxation of muscles. It is also the ability to execute motor actions under given condition in minimum possible time.

Objective of the study:

1. To study the effectiveness of the training program.
2. To understand the utility of specific training program.
3. To evaluate the rate of development of each individual.

Hypothesis:

1. Recommended training program will be found to be suitable for the 15-16 age group boys.
2. There will be a significant improvement in the physical fitness of the players.
3. The planned training program will cause no effect on all testing elements.

Delimitations:

1. The study was delimited to 15-16 years rural, urban areas boys of Rohtak District.
2. The study was delimited to AAHPER youth fitness test only.
3. The study was limited to 40 respondents only.

4. The training was delimited to 6 weeks only.

REVIEW OF LITERATURE:

Verma et al (1979) having studied 15 national basketball players of India. After 5-6 weeks of hard physical training confirmed low resting pulse rate and faster blood pressure recovery.

Bucy (1965) conducted the study to find out the effects of three methods of training on physical fitness of male students at Rector High School. He equated the 3 groups consisting of 17 subjects each on the basis of AAHPER physical fitness test scores, age, weight, height and strength. Groups were assigned 11 weeks exercise program in addition to regular physical education classes, three times a week. The isometric group used weight exercise requiring 9 minutes per day for 5 days a week. The analysis of data was done by using T ratio. Result of the study shows that all the groups Improve significantly in physical fitness, strength and weight. The isometric exercises had significantly greater than the calisthenics exercise group decreased in heart rate. There was no significant change in systolic and diastolic blood pressure and anxiety levels. A program of exercise, moderate in intensity and under proper supervision, was found to Improve to physical fitness of an elderly and to be safe and effective.

PLAN AND PROCEDURE

Selection of respondent:-40 respondents belonging to the age of 15-16 years from rural, urban areas were selected for Rohtak district, which have already represented their school at district level.

Six weeks training program was prepared. Every seventh day was the rest day. Out of these 40 respondents (20 were from rural and 20 were from urban area) and played as per their routine.

Research design:- Every respondent was given a few trials for each test. Sufficient rest was allowed in between trials. The test was administrated on each respondent prior to the beginning of the training and after the six weeks of training program. Respondents were given trials prior to the pre- test so that they could give their best performance in the pre- test.

After the pre-test, the exercise training program of 6 weeks administrated to the respondents of both urban and rural area and the post test score were recorded after six weeks.

Selection of tests:-AAPHER Youth Fitness Test

1. Pull Ups
2. Bent-knee sit ups
3. Shuttle run
4. Standing Broad Jump

5. 50 yard dash
6. 12 minute run and walk

1. Pull ups:

2. A horizontal bar was fixed at such a height that the respondents could hold the bar with a jump. The respondents lift the body by flexing the arms in such a way so that the chin crossed the bar keeping his body in straight position. In this way the respondents repeat the pull ups for the maximum number of times and his correct number of pull ups was recorded.

3. Bent-knee sit ups:

The respondents were asked lay down in supine position with flexed knee. The number of sit ups completed by the respondents was recorded as score.

4. Shuttle Run:

Two parallel lines 10 meter apart were marked on the field. Two wooden blocks of size of 2” x 2” x 4” were placed behind one of the line and respondents started the test behind the other line.

5. Standing Broad Jump:

The respondent was asked to stand with his feet apart the toes just behind the take off line. The jump was accomplished by simultaneous extending the knees and swings the arms forward. Three chances of both respondent were given and the best performance was recorded as the score of the respondent.

6. 50 yard dash:

The command “Go” was accompanied by downward sweep of the starter arm to give a visual signal to the timers standing at the function line. The time taken to cover distance was noted as the score of the respondent.

7. 12 minute run and walk:

The respondents were divided in two groups of 20 each. The respondents of each group were asked to stand behind the starting line and on the signal, “Ready” “Go” they started for running for 12 minutes. The distance covered in meter was calculated at recorded as the score of the respondents.

ANALYSIS AND INTERPRETATION

Table

Physical fitness variables of urban and rural area subjects

Variables	Urban area			Rural area		
	Pre-test (mean)	Post test (mean)	t value	Pre-test (mean)	Post test (mean)	t value
Pull ups	10.57	10.73	0.350	9.15	12.08	5.57
Knee bent sit ups	23.93	24.22	0.248	25.08	35.35	5.63
Shuttle run	9.99	9.97	0.217	9.94	9.73	1.94
Standing broad jump	6.033	6.033	0.063	6.22	6.40	1.56
50 yard dash	8.15	8.1	0.502	7.94	6.96	6.26
12 minute run/walk	21.99	22.98	3.64	21.82	22.51	1.96

As per table all the components of physical fitness variable are found to be statistically significant at 0.05 level. It is clearly evident from the obtained result that the subjects from rural area are strong in strength, more agile, speedy and they have better in endurance.

Finding and Recommendations:

1. In pull ups, respondents of the rural area showed significant improvement as compared to urban area. After six weeks of training which proved that exercise are beneficial for the development of strength of arms, shoulders and can be followed by players and coaches.
2. Result of sit ups showed that there was significant improvement in abdominal strength of urban area. This proved that treatment was quite effective for developing strength and abdominal region.
3. The effectiveness of training program can be seen through the result of shuttle run test which showed significant improvement in the agility of the respondents of rural groups.
4. Performance of the respondents proved the effectiveness of the training program as is evident from the result obtained through the standing broad jump test of explosive strength of legs. The respondents showed improvement signifying the utility of design training program.
5. The result of 50 Meters Dash for measuring speed ability for 12 minutes run and walk for cardio vascular efficiency proved that effectiveness of design training program the study showed that the respondents of urban area also improved cardio vascular efficiency significantly which proved that his ability can be improved by following arm schedule.

Recommendations:

1. The research study can be undertaken on different age groups.
2. Similar research study can be undertaken on the sports persons of other district of Haryana State.
3. Result of the study can be helpful to the coaches and physical education teachers in preparing training schedules for their players.
4. The result of the study can be helpful to the individual for self evaluation.

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