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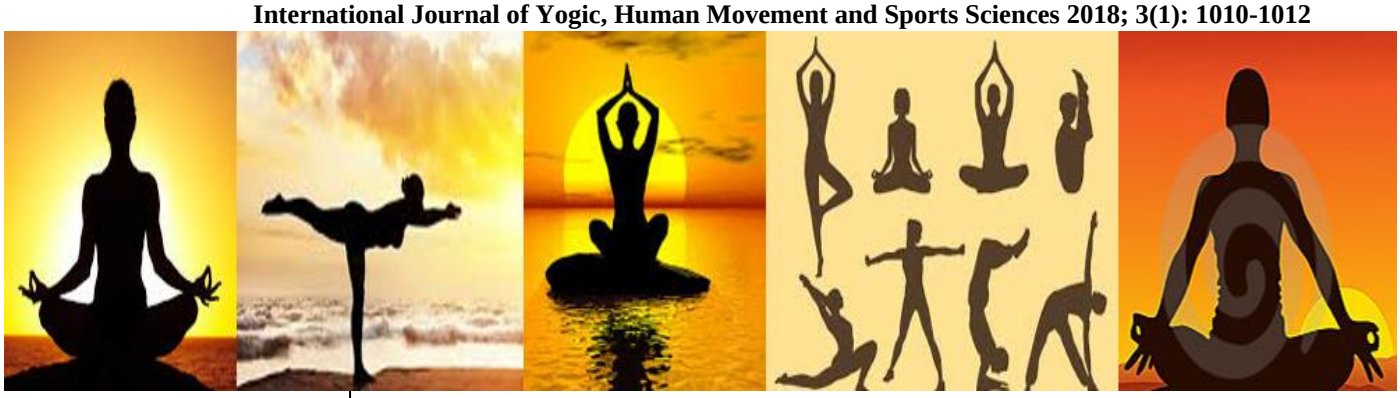

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A comparative study of motor fitness between rural and urban athletes of Nagpur

Dr. Vasant Vishram Rathod and Dr. Ashutosh Rai

Abstract
The purpose of this study was to compare motor fitness components of Rural and Urban Athletes of Nagpur. For this study two hundred Athletes were selected randomly. One hundred Athletes from Rural areas and one hundred from Urban areas of Nagpur were selected. In this study following Motor Fitness Variables were taken into consideration. Speed, Strength, Endurance, Agility, Flexibility. The data collected for each variable administering their respective tests. To ensure that the data collected were reliable. Sufficient numbers of trials were given to each subject to perform their respective tests for each variable. AAHPER youth fitness test was used to measure Motor fitness of Rural and Urban Athletes of Nagpur. To compare Motor Fitness of Rural and Urban Athletes of Nagpur mean, standard deviation and t-test were used. The level of significance of was set at 0.05. The rural athletes were found superior to urban athletes in relation to motor fitness.

Keywords: motor fitness, rural, urban, athlete, speed, strength, endurance

Introduction
Existence and effectiveness depends upon his physical fitness. Even now Man's, physical fitness really implies, more than the ability to do a work without much efforts. Physical fitness affects to some degree all of his life's activities, not only his physical well being but his mental effectiveness and personal, social adjustment as well [1]. Adequate level of fitness should be developed early in life. A continuity maintained through regular participation in a well designed activity programme to promote the total well being of an individual children should be fit for participation in the play activities of childhood, through which they develop organic vigor physical strongness and other fitness qualities [2]. According to Carl W Will Goose, "Physical fitness is often referred to as organic vigor or vitality, the physical elements of behavior that permits the person to be active". Greater the physical fitness, greater the endurance and the precision of movements. The greater the physical fitness, the longer a person will be able to keep going; he will be able to perform more efficiently and at greater speed and to recuperate (recover) faster from fatigue. Poor health and lowered physical capacity reduces one's ability to perform mental task [3].

Statement of the Problem
The purpose of this study was to compare motor fitness of rural and urban athletes of Nagpur.

Selection of Subjects
For the purpose of this study two hundred athletes were randomly selected as subjects i.e. one hundred athletes from rural areas and one hundred athletes from urban areas of Nagpur.

Selection of Variables
After the review of literature, the following motor fitness variables were taken into consideration.

- Speed
- Strength
- Endurance
- Agility

- Flexibility

Through the abundant intake of oxygen by its disciplined techniques, subtle chemical changes take place in the practitioner's body. The practice of asanas removes the obstructions

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.

Criterion Measure

1. Arm strength was measured by Pull-ups, maximum number of correctly execute Pull-ups were recorded as scores of the test.
2. Leg strength was measured by standing broad jump and horizontal distance recorded in centimeters.
3. Abdomen strength was measured by sit-ups, total number of correctly excepted sit-ups in one minute were recorded.
4. Speed was measured by 50yard dash and time recorded in $1/10^{th}$ of second.
5. Endurance was measured by 12 minute run/walk, the distance recorded in meter.

Findings

To find out the significant difference between the mean scores of Urban & Rural Athletes, Independent t-test was used and analyses of data are presented in tabular form from Tables 1 to 8.

Table 1: Comparison of Arm strength between Rural & Urban Athletes of Nagpur

Variables	Groups				t-ratio
	Rural		Urban		
	Mean	Standard Deviation	Mean	Standard Deviation	
Arm Strength	9.43	2.21	8.15	1.67	5.09*

*significant at .05 level
t .05 (198 df) = 1.96

It is evident from Table 1 that significant difference exists between the mean scores of Rural & Urban Athletes in relation to Arm Strength since obtained t-value 5.09 was found greater than the tabulated value of t 0.05 (198)1.96 at .05 level of significance.

Table 2: Comparison of Abdomen strength between Rural & Urban Athletes of Nagpur

Variables	Groups				t-ratio
	Rural		Urban		
	Mean	Standard Deviation	Mean	Standard Deviation	
Abdomen Strength	25.75	6.56	21.89	3.12	3.64*

*significant at .05 level
t .05 (198 df) = 1.96

It's evident from Table- 2 that significant difference exists between the mean scores of Rural & Urban Athletes in relation to Abdomen Strength since obtained t-value 3.64 was greater than the tabulated value 1.96 at .05 level of significance.

Table 3: Comparison of Leg Strength between Rural & Urban Athletes of Nagpur

Variables	Groups				t-ratio
	Rural		Urban		
	Mean	Standard Deviation	Mean	Standard Deviation	
Leg Strength	2.27	0.29	1.99	0.11	2.97*

*significant at .05 level
t .05 (198 df) = 1.96

It's evident from Table 3 that significant difference exists between the mean scores of Rural & Urban Athletes in relation to Leg Strength since obtained t-value 2.97 was greater than the tabulated value 1.96 at .05 level of significance.

Table 4: Comparison of Speed between Rural & Urban Athletes of Nagpur

Variables	Groups				t-ratio
	Rural		Urban		
	Mean	Standard Deviation	Mean	Standard Deviation	
Speed	8.16	0.70	8.97	0.69	4.80*

*significant at .05 level
t .05 (198 df) = 1.96

It's evident from Table 4 that significant difference exist between the mean scores of Rural & Urban Athletes in relation to Speed since obtained t-value 4.80 was greater than the tabulated value 1.96 at .05 level of significance.

Table 5: Comparison of Endurance between Rural & Urban Athletes of Nagpur

Variables	Groups				t-ratio
	Rural		Urban		
	Mean	Standard Deviation	Mean	Standard Deviation	
Endurance	2362.3	424.89	2144.28	317.27	1.06

*significant at .05 level
t .05 (198 df) = 1.96

It's evident from Table 5 that no significant difference exists between the mean scores of Rural & Urban Athletes in relation to Endurance since obtained t-value 1.06 was found that is less than the required value1.96 at .05 level of significance.

Table 6: Comparison of Agility between Rural & Urban Athletes of Nagpur

Variables	Groups				t-ratio
	Rural		Urban		
	Mean	Standard Deviation	Mean	Standard Deviation	
Agility	9.44	1.02	8.87	0.99	1.78

*significant at .05 level
t .05 (198 df) = 1.96

It's evident from Table 6 that no significant difference exists between the mean scores of Rural & Urban Athletes in relation to Agility since obtained t-value 1.78 was found less than the tabulated value 1.96 at .05 level of significance.

Table 7: Comparison of Flexibility between Rural & Urban Athletes of Nagpur

Variables	Groups				t-ratio
	Rural		Urban		
	Mean	Standard Deviation	Mean	Standard Deviation	
Flexibility	19.64	2.98	15.81	4.86	2.45*

*significant at .05 level
t .05 (198 df) = 1.96

It's evident from Table 7 that significant difference exists between the mean scores of Rural & Urban Athletes in relation to Flexibility since obtained t-value 2.45 was greater than the tabulated value 1.96 at .05 level of significance.

Discussion of Findings

The Rural Athletes were proved to be superior then urban Athlete in Arm Strength, Leg Strength, Abdomen Strength, Speed, and Flexibility than the Urban Athletes may be due to the traditional work of farming in rural areas. The Rural Athletes of Nagpur mainly depend on farming as their main business. To survive and fulfill their daily needs the rural area Athlete has to perform very hard physical activity. That's why the Rural Athletes are physically superior to Urban Athletes without any specific Physical Training. The Urban Athletes mainly depend on the office type of work for the survival & fulfillment of their daily needs and livelihood whereas Rural Athletes are doing specific physical programme with their hard daily routine for livelihood and cope up with more Physical load than the Urban Athletes, that's why the Rural Athletes are more physically fit than Urban Athletes.

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