A COMPARATIVE STUDY ON DIFFERENT FITNESS ATTRIBUTES OF RURAL AND URBAN YOUNG MALE AND FEMALE

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Abstract

INTRODUCTION: **A**ll-round fitness is a key to quality of life. To be able to carry out daily tasks without undue fatigue or to enjoy leisure-time pursuits requires a certain degree of fitness. A physically fit person looks better, feels better and thinks better and so lives better. Likewise, physical fitness is closely associated with good health. **PURPOSE**: To compare different fitness attributes of rural and urban male and female of young age. **METHODS**: Total 60 (15 rural males, 15 urban males and 15 rural females, 15 urban females), ages 17-22 years, belonging to south 24 district, West Bengal, volunteered to serve as subjects of the study. Muscular strength-endurance, agility, explosive strength and were the selected fitness variables of the study. Independent't' test was used to examine the significant difference, if any, between the group means of different physical fitness variables. The level of confidence was set at .05. **FINDINGS:** The t-value of muscular strength- endurance [2.95 (<.05)], explosive strength [2.35 (<.05)], and agility [2.14(<.05)], of rural and urban males and muscular strength- endurance [3.05 (<.05)], explosive strength [2.63 (<.05)], agility [2.49(<.05)],of rural and urban females were found significant. **RESULT:** Mean value indicates that in muscular strength- endurance, explosive strength, agility rural males and females are better than urban males and females' gender wise under study.

KEYWORDS: Muscular strength-endurance, Explosive strength, Agility Rural and Urban people.

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INTRODUCTION

All-round fitness is a key to quality of life. To be able to carry out daily tasks without undue fatigue or to enjoy leisure-time pursuits requires a certain degree of fitness. A physically fit Person looks better, feels better and thinks better and so lives better. Likewise, physical fitness is closely associated with good health.

Concept of physical fitness is as old as humankind. Through out the history of mankind physical fitness has been considered an essential element of everyday life. The ancient people were mainly dependent upon their individual strength, vigor and vitality for physical survival. This involved mastery of some basic skill like strength, speed, endurance, agility for running, jumping, climbing and other skills employed in hunting for their livings.

Over the past four decades, there has been an increase in the prevalence of overweight and physical fitness deterioration in adult across all genders, ages and racial/ethnic groups (*Ichinohe et al. 2004*).The negative effects of degraded physical fitness on both the individual and society are serious and multi-dimensional. It can cause many risk factors to health including coronary heart disease, certain forms of cancer, diabetes, hypertension, stroke, gall bladder diseases, osteoarthritis, respiratory problems, gout and is associated with increases in all-cause mortality (*Cataldo 1999*). In adults, relationship among physical activity, health related fitness, and health are fairly well established *(Boucherd and Shepherd 1994).* Low levels of physical activity and cardio-respiratory fitness are both associated with higher risk of all cause and disease specific mortality *(Thune et al. 1998).*

The complex nature of physical fitness can be best under stood in terms of its components such as cardiovascular endurance, strength, flexibility, speed, agility and muscular endurance. In addition to these components of physical fitness there are many other factor which contribute to physical fitness including heredity, living standard, nutrition, hygienic conditions, environmental and climate factors etc. (Sallis. et.al. 1992).

A higher level of physical fitness is associated with a lower risk of developing hypertension, which is related to coronary heart disease *(Marti, 1991*). Furthermore, adequate flexibility and sufficient muscular strength and endurance mayreduce risks of low back pain as well as muscular and joint injuries (*Liemohn et al, 1988*). Recent research shows that physical activity is one of the most important factors related to maintaining good health *(Corbin & Pangrazi, 1993;*

USDHHS, 1996). Physical activity can help 'control body weight' (*Epstein & Wing, 1980)* and 'reduce risks of cardiovascular diseases' *(Morris et al, 1980).*

The National College Health Risk Behavior Survey reported that 35% of American college students are overweight *(Lowry et al. 2000).* This is not surprising considering that more than twothirds of American adult population are classified as overweight (*Flegal et al. 2002),* making weight gains America's leading health problem *(Mokdad et al. 2001).*

The expert committee of the World Health Organization (1981) described physical fitness as "the ability to undertake muscular work satisfactorily." Physical fitness is the capacity to early out, reasonably well, various forms of physical activities, without being unduly tired and includes qualities important to the individual's health and well-being.

Every person has a different level of physical fitness which may change with time, place of work, situation and there is also an interaction between the daily activities, and the fitness of an individual, the point if where to put the level of optimum fitness. From the physiological point of view physical fitness may say to be ability at the body to adopt and recover from strenuous exercise.

PURPOSE OF THE STUDY:

To compare different fitness attributes of rural and urban male and female of young age.

METHODOLOGY

Selection of subject

Total 60 (15 rural males, 15 urban males and 15 rural females, 15 urban females), ages 17-22 years, belonging to south 24 district, West Bengal, volunteered to serve as subjects of the study.

SELECTION OF VARIABLES AND THEIR CRITERION MEASURES

Table 1 represents the components physical fitness variables which were selected for the present study and were measured.

Table-1.

Variables	Units	Criterion measures
Muscular Strength Endurance	Scores/60 seconds	Sit ups
Explosive Strength	centimetres	10*10m Shuttle run
Agility	seconds	Vertical jump

STATISTICAL PROCEDURE

The data analyzed and compared with the help of statistical procedure in which mean, standard deviation and 't' test used to compare the data.

RESULTS

Mean and standard deviation of the selected different fitness variables of rural and urban males and females gender wise computed. Its result was depicted in table 2 and table 3.

Table-2 rural and urban males

Sl. no	Variables	units	Rural	Urban
			Mean & SD	Mean & SD
1.	Strength endurance(abdominal)	Scores/60 seconds	36.06±2.40	33.40±2.55
2.	Explosive Strength	centimeters	31.53±2.47	29.6±2.02
3.	Agility	seconds	31.77±2.77	33.85±2.25

Table- 3 rural and urban females

Sl .no	Variables	units	Rural	Urban
			Mean & SD	Mean & SD
1.	Strength endurance(abdominal)	Scores/60 seconds	31±1.60	29.20±1.65
2.	Explosive Strength	centimeters	26.60±1.97	24.73±1.98
3.	Agility	seconds	35.32±2.40	37.39±2.04

Table 2 depicts that the mean and standard deviation values of selected fitness variables of rural and urban males. There values were recorded as variables wise, muscular strength endurance 36.06 ±2.40, explosive strength 31.53±2.47, agility 31.77 ±2.77 and muscular strength endurance 33.40±2.55, explosive strength 29.60 ±2.02, agility 33.85± 2.25 respectively.

Table 3 depicts that the mean and standard deviation values of selected fitness variables of rural and urban females. There values were recorded as variables wise, muscular strength endurance 31±1.60, explosive strength 26.60±1.97, agility 35.32±2.40 and muscular strength endurance 29.20±1.65, explosive strength 24.73±1.98, agility 37.39± 2.04 respectively.

Table 4: Comparative analysis of strength endurance between rural and urban males

Variable	Groups	Mean	SD	SED	't' Value
strength endurance	Rural	36.06	2.40	0.90	2.95*
	Urban	33.40	2.55		

' t' 0 .05 (28)=2.04 significant at 0.05 level

Table 5: Comparative analysis of Explosive Strength between rural and urban males

Variable	Groups	Mean	SD	SED	't' Value
explosive strength	Rural	31.53	2.47	0.82	2.35*
	Urban	29.6	2.02		

' t' 0.05 (28)=2.04 significant at 0.05 level

Table 6: Comparative analysis of Agility between rural and urban males

Variable	Groups	Mean	SD	SED	't' Value
Agility	Rural	31.77	2.77	0.97	2.14*
	Urban	33.85	2.25		

' t' 0.05 (28)=2.04 significant at 0.05 level

Table 7: Comparative analysis of strength endurance between rural and urban females

Variable	Groups	Mean	SD	SED	't' Value
strength endurance	Rural	31	1.60	0.59	3.05*
	Urban	29.20	1.65		

' t' 0.05 (28)=2.04 significant at 0.05 level

Table 8: Comparative analysis of Explosive Strength between rural and urban females

Variable	Groups	Mean	SD	SED	't' Value
explosive	Rural	26.60	1.97	0.71	2.63*

strength	Urban	24.73	1.98		

‘ t’ 0.05 (28)=2.04 significant at 0.05 level

Table 9: Comparative analysis of Agility between rural and urban females

Variable	Groups	Mean	SD	SED	‘t’ Value
Agility	Rural	35.32±	2.40	0.83	2.49*
	Urban	37.39±	2.04		

‘ t’ 0.05 (28)=2.04 significant at 0.05 level

The perusal of table 4 indicates that the mean and standard values for strength endurance variable for rural and urban males were recorded as 36.06 ±2.40 and33.40 ±2.55 respectively. It shows that rural males have performed significantly better than urban males.

The analysis of table 5 shows that the mean and standard deviation value for explosive strength variables for rural and urban males were recorded as 31.53 ± 2.47 and 29.60± 2.02 respectively. It indicates that rural males are significantly better than urban males.

The analysis of the table 6 indicates that the mean standard deviation values on the agility variable for rural and urban males were recorded as 31.77±2.77 and 33.85±2.25 respectively. It shows that rural males are significantly better than urban males.

Perusal of the table 7 shows that the mean and standard deviation values on the muscular strength endurance variables for rural and urban females were recorded as 31±1.60 and 29.20±1.65 respectively. It indicates that the rural females are significantly better than urban females.

The analysis of the table 8 indicates that the mean and standard deviation values on the explosive strength variable of rural and urban females were recorded as 26.60±1.97 and 24.73±1.98 respectively. It shows that rural females have performed significantly better than urban females.

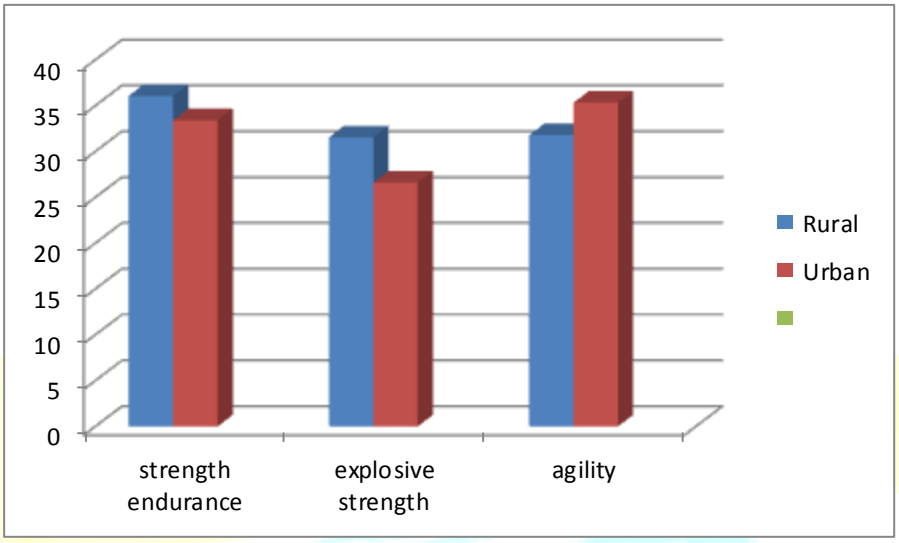
Perusal of the table 9 shows that the mean and standard deviation values on the agility variable of rural and urban females were recorded as 35.32± 2.40and 37.39 ± 2.04 respectively. It indicates that rural females significantly better than urban females.

DISCUSSION:

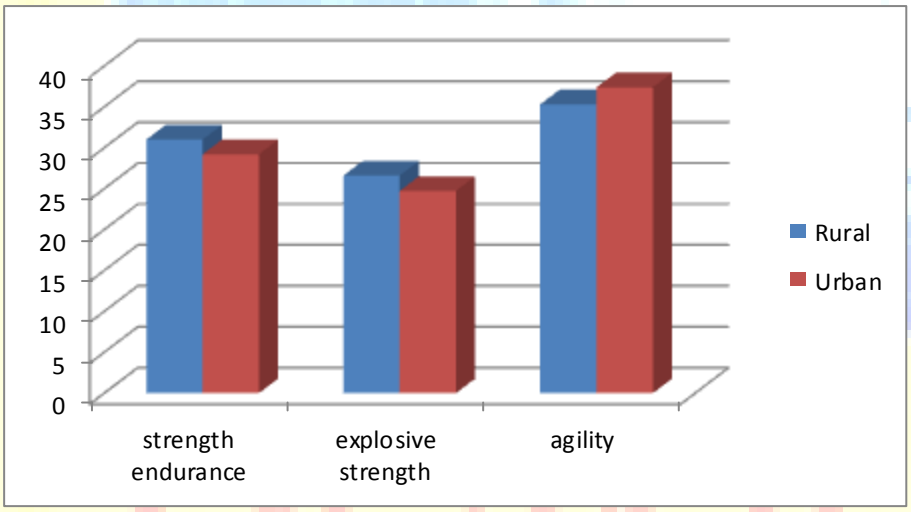
This study was aimed to the find out comparative relationship different fitness attributes between rural and urban males females gender wise. There are various factors that influence physical fitness; these factors include physical activity, environment, heredity, life style, food habit and maturation. Mechanism and the development of life wealth and facilities have changed the mankind tendency towards the nature. So, today we observe many different diseases due to this lack of body movement. Laziness and self-indulgence and avoidance of any physical activities has caused to the emergency of different muscular- skeletal. Asymmetric, bone pains and respiratory-cardiac diseases and so on.

The results of this study showed that rural males and females are significantly better in strength endurance, explosive strength, agility than urban males and females gender wise.. The finding of this study suggests that there is a significant difference between rural males and females and urban males and females in selected fitness attributes (strength endurance, explosive strength and agility).This result were similar to Comparison of Physical Fitness status of Rural and Urban Male Collegiate students in Kurukshetra, which found that rural college students better than urban college students in agility (*Gahlawat, Parveen, 2007), Gill et al. (2010)* in a research on 100 students (50 urban girls and 50 rural girls) in Panjab University compared the features of physical fitness among girl students belonged to urban and rural areas. The obtained data were analyzed and assessed efficiently. Finally, the rural girls were superior in terms of power, endurance and agility. Moharramzadeh et al (2000) compared the physical fitness level of male and female students of Urumieh University; it's found that all male tests have the greatest scores than female students; All items were superior in males expect flexibility but the rest factors such as the power, muscular endurance and explosive power were predictable.

Graphical representation of difference in mean scores of selected physical fitness variables for the rural and urban males



Graphical representation of difference in mean scores of selected physical fitness variables for the rural and urban females



CONCLUSION:

On the basis of the results of the study, the following conclusions were drawn:

- Rural males are better performed than urban males in selected fitness attributes (strength endurance, explosive strength, agility).
- Rural females are better performed than urban females in selected fitness attributes (strength endurance, explosive strength, agility).

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