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A COMPARATIVE ANALYSIS OF SELECTED PHYSICAL AND ANTHROPOMETRIC VARIABLES AMONG RURAL, SEMI URBAN AND URBAN COLLEGE STUDENTS OF AHMEDNAGAR DISTRICT

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Abstract - Physical education is an integral part of the total education process is a field of Endeavour which has strain the development of physically, mentally, emotionally and socially fit citizen through the medium of physical activities which has been selected with a view of realizing these outcomes. Anthropometrics literally means man (anthro) measurements (metric). It is the measurement of the size and proportions of the human body, as well as parameters such as reach and visual range capabilities. Anthropometrics enables us to properly size items, including system interfaces, to the "fit" the user.

The maintenance of health through good health practices and the development of physical fitness including sufficient strength, cardio respiratory and muscular endurance, to avoid excessive fatigue and to ensure adequate energy levels.

The study is intended to compare physical and anthropometric variables of Semi Urban, Rural and Urban Regional College Men. The aim of the research problem is to find Physical and Anthropometric Variables to know the area wise physical fitness. That by finding Physical and Anthropometric variables coaches and physical Teachers was benefited to judge the area wise health related physical fitness.

Keyword: Physical Fitness, Anthropometric Measurements, BMI

INTRODUCATION

Physical education is an integral part of the total education process is a field of Endeavour which has strain the development of physically, mentally, emotionally and socially fit citizen through the medium of physical activities which has been selected with a view of realising these outcomes. Anthropometrics literally means man (anthro) measurements (metric). It is the measurement of the size and proportions of the human body, as well as parameters such as reach and visual range capabilities. Anthropometrics enables us to properly size items, including system interfaces, to the "fit" the user.

OBJECTIVES OF PHYSICAL EDUCATION

Organic development is generally considered to be of importance. This would conclude among other thing. The maintenance of health through good health practices and the development of physical fitness including sufficient strength, cardio respiratory and muscular endurance, to avoid excessive fatigue and to ensure adequate energy levels. Social development is another objective that is universally listed the ability to function effectively with other and in group is usually considered an important outcome to be sought through physical education. Psychological development summed under this heading would be such things and improved personality characteristics self confidence, self respect and opportunity for self fulfillment and self realization. Cognitive objective is that rationally stresses by teacher of academic subjects. Although health educators have long been concerned with helping students gain understanding of certain facts and principles, physical education has generally limited their cognitive (intellectual) emphasis of knowledge and rules and strategy of sports and games.

AIM AND OBJECTIVES OF STUDY

Organic development is generally considered to be of importance. The study will be intended to compare physical and anthropometric variables of Rural and Urban College Students of Ahmednagar District.

Aim – The aim of the research problem is to find Physical and Anthropometric Variables to know the area wise performs of the games. I hope that by finding Physical and Anthropometric variables coaches and physical Teachers will be benefited to judge the area wise games & student to improvement in performance.

Objectives – To fulfill the aim following objectives should be followed.

1) To identify the problem and suggestive measures to remove it.
2) The study will be intended to compare Physical and anthropometric variables of Rural, Semi Urban and Urban College Men Student of India.

HYPOTHESIS

H 1. It is hypothesized that the Rural college student may be better in physical variables than Semi Urban and Urban college student in physical variable namely agility, power and arm strength.

H 2. It is hypothesized that the Urban college student may be better in Anthropometric variables than the Semi Urban and Rural college student.

H 3. It is hypothesized that the Rural and Urban college student may be heighten then Semi Urban college student.

H 4. It is hypothesized that the Rural college student may be strengthen then Urban and Semi Urban college student.

H 5. It is hypothesized that the Rural college student may be arm length more than Urban and Semi Urban college student.

H 6. It is hypothesized that the Urban college student weight may be better than Rural and Semi Urban college student.

SIGNIFICANCE OF STUDY

For above we saw importance of find out physical and anthropometric variables of Rural, Semi Urban and Urban college student. The physical and anthropometric variables of Rural, Semi Urban and Urban college student in importance of coaches and physical teachers to selected the games for better performance of student.

DELIMITATIONS OF STUDY

The study was delimited to the following subject's characteristics.

1. The Study was delimited to the College men student.
2. The Study was further delimited to age group of 21 to 25 years.
3. The study was delimited to only Urban, Rural, Semi Urban areas college men of India.

LIMITATIONS OF STUDY

The study was comparing the Physical and Anthropometric Variable of Rural, Semi Urban and Urban college men. Anthropometric variable such as height, weight, and arm length to investigate each of the group was better, physical variable as agility, power and arm strength. Subjects were selected randomly from Rural, Semi Urban and Urban counterparts and their performance in agility, power and arm strength was recorded and also height, weight and arm strength were measured and recorded.

MATERIALS AND METHODS

The procedure for method of experimental, collection and data and then statistical Technique used for analyzing the data have been described in this chapter.

STATISTICAL ANALYSIS

Correlation matrices were calculated for anthropometric parameters, pulmonary, metabolic, cardio respiratory functions, and 10 times. The variables were expressed in absolute terms to avoid possible bias due to ratio scores in the correlations (13). In a preliminary study, Type II error may be more serious than type I error. A significance level of p=0.05 was chosen to help avoid type II error (not detecting potentially significant correlations) since this study was preliminary. The 'F' ratio was computed and Scheffe's post hoc test was used to determine the significance among the means at 05 level of confidence.

STATISTICAL METHOD

The procedure adopted for method of experimental, collection of data and the Statistical Technique used for analyzing the data. Analysis of variance was followed to compare the physical variables of Rural, Semi Urban and Urban college men, for interpreting the results as recommended by Clarke and Clarke7.

PROCEDURE

150 hundred subjects were selected randomly from Semi Urban, Rural and Urban counterparts and their performance in agility, power and arm strength were recorded and also height, weight, arm length was measured and recorded.

FINDING

ONE WAY ANOVA TABLES FOR AGILITY

Analysis of variance: for agility between Semi Urban, Rural and Urban college men

Source of variance	Sum of squares	Degree of Freedom	Mean squares	'F' Ratio	Table F value
Treatment (SSB)	70	2	35.00	8.93	3.01
(SSW) Error	3515	897	3.92		
Total (SST)	3585	899			

Significant at – .05 level

Tab F Value (2 and 897) = 3.01

ONE-WAY ANOVA TABLE FOR LEG POWER

Analysis of Variance Power Semi Urban, Rural and Urban College Men

Source of variance	Sum of squares	Degree of Freedom	Mean squares	'F' Ratio	Table F value
Treatment (SSB)	3	2	1.50	7.87	3.01
(SSW) Error	171	897	0.19		
Total (SST)	174	899			

Significant at – .05 level

Tab F Value (2 and 897) = 3.01

ONE-WAY ANOVA TABLE FOR ARM STRENGTH

Analysis Of Variance for Arm Strength among Rural, Semi Urban, and Urban College Men

Source of variance	Sum of squares	Degree of Freedom	Mean squares	'F' Ratio	Table F value
Treatment (SSB)	81	2	40.50	6.93	3.01
(SSW) Error	5242	897	5.84		
Total (SST)	53.23	899			

Table F – ratio .05 level = 3.01 (2 and 897 df)

ONE-WAY ANOVA TABLE FOR ARM LENGTH

Analysis of Variance for Arm Length among Semi Urban, Rural and Urban College Men

Source of variance	Sum of squares	Degree of Freedom	Mean squares	'F' Ratio	Table F value
Treatment (SSB)	1809	2	904.50	8.10	3.01
(SSW) Error	100223	897	11173		
Total (SST)	102032	899			

Table F – ratio .05 level = 3.01 (2 and 897 df)

ONE-WAY ANOVA TABLE FOR HEIGHT

Analysis of Variance for Height among Semi Urban, Rural and Urban College Men

Source of variance	Sum of squares	Degree of Freedom	Mean squares	'F' Ratio	Table F value
Treatment (SSB)	1726	2	863.00	7.20	3.01
(SSW) Error	107585	897	199.94		
Total (SST)	109311	899			

Table F – ratio .05 level = 3.01 (2 and 897 df)

ONE-WAY ANOVA TABLE FOR WEIGHT

Analysis of Variance for Weight among Semi Urban, Rural and Urban College Men

Source of variance	Sum of squares	Degree of Freedom	Mean squares	'F' Ratio	Table F value
Treatment (SSB)	43	2	21.50	0.71	3.01
(SSW) Error	27139	897	30.26		
Total (SST)	27182	899			

Table F – ratio .05 level = 3.01 (2 and 897 df)

CONCLUSION

On the basis of the statistical result the following conclusions were drawn within the limitation of the study.

1. There was significant difference between Urban-Rural groups college men in Shuttle run for agility but the difference between Urban- Semi Urban and Semi Urban-Rural was insignificant.
2. There was significant difference between Urban and Rural groups in standing broad jump for leg power. But the difference between Semi Urban and Urban and Semi Urban Rural was insignificant.
3. There was significant difference between Urban and Rural group in pull-ups for arm strength But the difference between Urban- Semi Urban and Semi Urban-Rural group was insignificant.
4. There was significant difference between Urban-Rural groups in arm length but the difference between Semi Urban-Rural and Urban- Semi Urban group was insignificant.
5. There was significant difference between Urban-Rural groups in height. But the difference between Urban- Semi Urban, Semi Urban-Rural groups was insignificant.
6. There was no significant difference among the three groups of college men in weight.

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