

Body Composition Profile of CBSE School Children AurangabadMaharashtra.

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Abstract

In this study **“Study of body composition profile of CBSE school children of Aurangabad”** Data was collected from age group 14 year’s boys from Woodridge High School, Gaikwad Global School, and Rose Bird School from Aurangabad Maharashtra. Researcher has randomly selected 300 samples for this study. This all samples were selected regular school going children. Total 10 Body composition profile tests are conducted on these students. Administrations of the test are carried out as per the standardized norms. Initially the research used Heath-Cartel somatotype test for Body composition. Test has conducted to follow norms and same equipment used for all students. In this research, percentage method employed for inferential statistically analysis. The research reveals that for testing body composition profile here research scholar has used Heath-Carter somatotype method. In this method three body types namely Endomorphy, Mesomorphy and Ectomorphy of 300 students were studied. It was found that out of 300 students, 98 students were found in Endomorphy body type, 110 students of Mesomorphy body type and 92 students of Ectomorphy body type. In percentage 37 % students in Mesomorphy body type.

Keywords

Body composition, Endomorphy, Mesomorphy and Ectomorphy, Krida prabodhani test, Physical fitness,

Introduction

This is the law that only the strong shall thrive..... that surely the weak will perish and only the fit will survive.

Robert W. Service (1874-1958).

Body composition refers primarily to the distribution of body muscle and fat, and its measurement plays an important role in both sports and healthy life. Excess body fat may lead to overweight or obesity and increases the risk of getting many more diseases. There are a few general methods for take the gauge of body size and composition. These tests are based on body dimensions, such as (BMI) body mass index and ponderal index which use measures of weight and height. Upper arm girth and calf girth measurements, skin fold for fat, knee and elbow width for bone. These methods are commonly used large scale studies, population studies or when a quick and simple measure is required.

According to the method of Heath and Carter (1967), the somatotype is expressed in a (3) three numeral rating system consisting of three sequential numerals, always recorded in the same order. The first one component is Endomorphy refers to the relative fatness and leanness in individual physique. The second component Mesomorphy refers to the musculo-skeletal development per unit of height and treated as the relative lean body mass. The third component Ectomorphy refers to the relative linearity of individuals and is based on ponderal index.

Objectives of the study

1. To find out the body composition profile of students of Aurangabad, Maharashtra.
2. To assess the body composition profile of students of Aurangabad, Maharashtra.
3. To analyze the body composition profile of students of Aurangabad, Maharashtra.

Hypothesis

- The hypothesis states that the **Mesomorphy body composition** of more than 50% of the CBSE students will be above satisfactory level.

Delimitation of the study:

1. The study was delimited to under14 boys only.
2. The study was delimited to CBSE school children only.
3. The study was delimited to the body composition profiles tests applicable for children.
4. The study was further delimited to the school going children only.
5. The study was delimited to Aurangabad city (Maharashtra).

Limitations of the study:-

1. Diet and rest of the children was a limitation.
2. Involvement of students during test was a limitation.
3. Organization of the tests was adjusted with the concerned schools time tables.
4. Physical, mental, weather, school, house and surrounding conditions were a limitation.

Population

The population of the study has been selected from CBSE schools of Aurangabad city, Maharashtra. The entire samples are selected from different zone of Aurangabad city.

Sample

The sample of the study has been randomly selected from Aurangabad CBSE schools in the age group of among 14 year boys. Every subject has been allotted with a code and separate self-contained form for test results. In all, 300 subjects were tested for this study.

SR. NO.	ZONE/ CODE	BODY COMPOSITION PROFILE
1	EGG	
2	WRB	
3	SWH	

- ❖ EGG= EAST GAYAKWAD GLOBAL SCHOOL
- ❖ WRB= WEST ROSE BIRD SCHOOL
- ❖ SWH= SOUTH WOODRIDGE HIGH SCHOOL

VARIABLES

Independent variables:

1. Body composition
2. Test

Dependent variables

1. Students Performance Result
2. Skin-fold measurement

Intervening variables

1. Fatigue
2. Environment
3. Diet
4. Rest

STATISTICAL METHODS

The statistical techniques used to estimate the Body composition of students by using standard norms. To analyze the collected data the scores were arranged according to the sequential order so as to find out the statistical values. To find out the result used percentage method for all tests.

Tools and means

It is use to collect the information of an individual. Personal data bank consists of the following aspects: Name, Date of birth, Gender, School name and use different equipment's that is used for tests.

Procedure

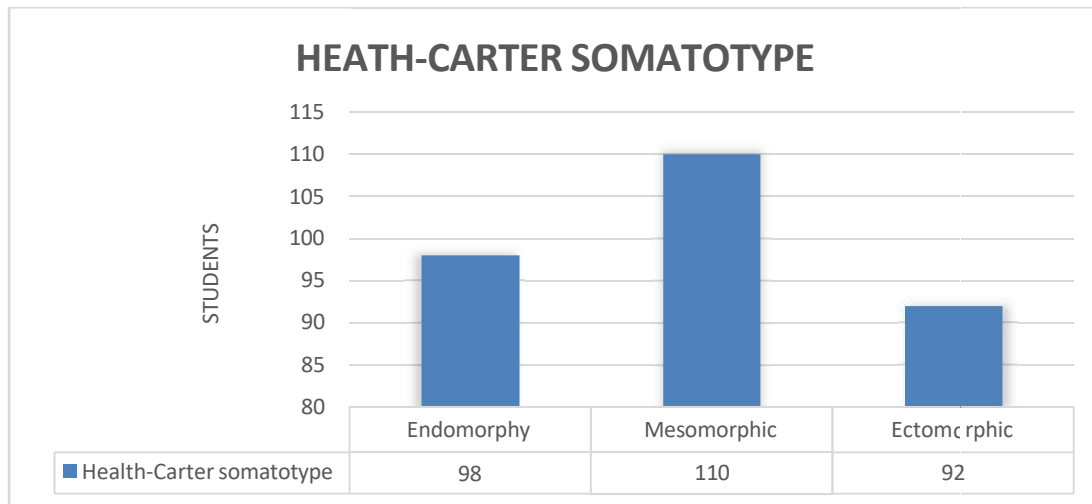
1. Body composition profiles

Body composition profile research scholar has used of Heath and Carter Somatotype method. Subcutaneous fat Triceps, Subscapular, Suprailiac, Calf.

➤ Table

	Number of students	Endomorphy	Mesomorphic	Ectomorphic
Numerical	300	98	110	92
Percentage	100%	31%	37%	32%

➤ Graph



Interpretation

For testing body composition profile here research scholar has used Heath-Carter somatotype method. In this method three body types namely Endomorphy, Mesomorphy and Ectomorphy of 300 students were studied. It was found that out of 300 students, 98 students were found in Endomorphy body type, 110 students of Mesomorphy body type and 92 students of Ectomorphy body type.

Test of Hypothesis

- The hypothesis states that the **Mesomorphy body composition** of more than 50% of the CBSE students will be above satisfactory level. The research study concludes that **Mesomorphy body composition 36.67 %** of the students is above satisfactory level. Hence the first hypothesis is rejected on the basis of research findings.

Conclusion

- The study concludes that **Mesomorphy body composition 36.67 %** of the students are above satisfactory level.

Reference

1. American college of sports medicine (ACSM), 1996, Resource Manual for Exercise Testing and Prescription. 18(4), 182–192.
 2. Andreasi, V., Michelin, E., Rinaldi, A. E. M., &Burini, R. C. (2010). Physical fitness and associations with anthropometric measurements in 7 to 15-year-old school children. *Jornal de pediatria*, 86(6), 497-502.
 3. Bailey, D.A., Carter, J.E.L. &Mirwald, R.L. (1982). Somatotype of Canadian Men and Women~ Human Bio- ~. 54: 813-828.
 4. Berry, J. N ~&Deshmukh, P. Y. (1963).Physique of Male College Students in Nagpur. *Indian Journal of Medical Research*. 51:313-326.
 5. Berry, J.N. (1972). Somatotype distribution in male college students in northern India, *American Journal of Human Biology*, Vol. 36(1); Pages: 85-93.
- Brodie, D., Moscrip, V., and Hutcheon, R. (1998). Body composition measurement: a review of hydro densitometry, anthropometry, and impedance methods. *Nutrition* 14: 296-310.

Webliography

1. https://en.m.wikipedia.org/wiki/Body_composition
2. <https://www.topendsports.com/testing/size-about.htm>
3. <https://www.topendsports.com/testing/bodcomposition-about.htm>
4. en.m.wikipedia.org
5. <https://mycbseguide.com>