



A Comparative Study of Selected Anthropometric and Motor Fitness Variables of The High School Students

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Abstract:-

The purpose of the study was to find out the Comparative effect of Anthropometric and Motor fitness variables upon High school students.

Purpose of the Study: The purpose of the investigation was to find out difference in physique, body composition and motor fitness of the students of the Janata Vidyalaya High School Satpur Nasik Dist.

60 male students of 30 players & 30 non-players, were selected for the investigation. In the present study, randomly selection 30 players and 30 non-players, aged 12-14 years were considered from Janata Vidyalaya High School Satpur Nasik Dist. .

Finding of the Study: Age, Body-weight, Stature (height), Calf Girth, Bicondylar Scores of Bent Knee Sit Ups (No's in 1 min), Medicine Ball through were taken on each subjects. It was noted that there was no difference in linear measurements such as height, Total Age wise body-weight, height, and calf girth of the students of the Player are found better than Non-player. The body composition and motor fitness of the player found better than Non-players.

Anthropometry / Kin anthropometry is the scientific study of human size shape, proportion. Composition, maturation and gross function in order to understand human growth, exercise, and performance. Body composition & Fitness analysis is an integral part of it.

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Key Word : Anthropometric, Motor Fitness, High School Students.**Introduction:**

The human body is similar to a machine. If mistreated and not properly maintained, the machine will malfunction and cease to run efficiently. Our bodies are similar in the sense that improper maintenance fosters deterioration of the numerous physiological systems within the body. Activity is the basis of life and human body cannot remain in normal condition without activity. Efforts have to be made to make up this deficiency by providing regular physical exercise. The physical fitness and wellness are inter-related to each other.

Metabolic Fitness- is a positive state of the physiological systems commonly associated with reduced risk of chronic diseases such as diabetes and heart disease. Healthy blood fat (lipid) profiles, healthy blood pressure, healthy blood sugar and insulin levels, and other non-performance measures evidence metabolic fitness. This type of fitness shows positive responses to moderate physical activity.

Bone Integrity -Soundness of the bones associated with high density and absence of symptoms of deterioration

- 1- Flexibility- It is the functional capacity of a joint to move through a normal range of motion. It is specific to a given joint and is actually more dependent upon the musculature surrounding a joint than on the actual body structure of the joint itself.
- 2- Strength: - Strength is the amount of muscular force one is capable of exerting in a single muscular contraction.
- 3 The term “body composition” is used in reference to the fat and non-fat components of the human body. The fat component is usually referred to as fat mass or percent body fat. The non fat component is referred to as lean body mass. Body composition is the proportion of the lean body mass and depot fat and it is one of the most important morphological features characterizing human organization.
- 4 *Ability* - general trait or capacity of a person, Relatively enduring characteristic,

Serves as a determinant of a person's achievement potential for the performance of specific skills

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- 5 *Motor Ability*-An ability that is specifically related to the performance of a motor skill, Each person has a variety of motor abilities

Design of the Study: 60 male students of 30 players & 30 non-players, were selected for the investigation. In the present study, randomly selection 30 players and 30 non-players, aged 12-14 years.

The players were further divided into two categories viz., 30 trained and 30 untrained. Body weight, Height, & Calf girth & Fitness test, medicine ball & forward bend & reach test were recorded. Statistical analyses were performed using student's t' test.

Statistical Analysis: The researcher had collected the data to find out the effect of selected Anthropometric and Motor fitness variables upon High school students. By the Anthropometric measurement and Motor ability test.

The result of the research work was that, these differences are statistically significant. The physical fitness variables i.e. muscular strength and flexibility of abdominal test

S.NO.	Test	Total Sample	t value	Degree of f	significant
1-Trained	Bodyweight	30	2.21	29	No significant
Untrained	Bodyweight	30	0.08	31	No significant
2-Trained	Height	30	0.01	31	No significant
Untrained	Height	30	0.00	29	No significant
3-Trained	Calf M	30	0.270	29	No significant
Untrained	Calf M	30	0.00	31	No significant
4-Trained	Medicine Ball	30	8.77	29	significant
Untrained	Medicine Ball	30	5.48	31	significant
5-Trained	Forward bend& reach	30	6.42	29	significant
Untrained	Forward bend& reach	30	1.00	31	No significant

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performance are significantly better than Non-players performance of school boys. There exists a significant effect of exercise module on physical fitness variable of selected school going boys.

Table-1**FINDING & CONCLUSION:**

- 1- The Flexibility has been better of the player found than Non-player.
- 2- The body composition and Motor fitness of the Player found better than Non-Player did.
- 3- A study may be undertaken to find out relationship of Anthropometric measurement and Motor ability test.

The Test Items are valid as well as reliable to assess the outcome of physical education programmed in terms of students' status on Health Related Physical Fitness variables.

This study has a great impact on the field of physical education at the school level. The result of this study will help various academic and sports agencies in different manners.

RECOMMEDATIONS: It recommended that the similar type of the study can be undertaken for various other sub-components motor fitness & anthropometric measurement.

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