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Relationship of somatotype classification with the playing ability of softball male players

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Abstract

For the fulfillment of the purpose of this study, total twenty five male Softball players, who participated in various inter-varsity competitions from Panjab University Chandigarh, were selected as subjects. The age group of subjects was between 18-25 years. The purpose of the study was to find out the relationship of Somatotype classification with the playing ability of softball players (male). The Somatotype rating produced by health and Carter (1967) was selected as it involves rating of an individual of some anthropometric and body composition variables. The 't' test was used to assess the relationship of Somatotype classification to playing abilities in softball players. The formula of product moment correlation was applied.

In the study, it was found that softball players had insignificant correlation between each of the somatotype components to their playing ability. Hence, lean and thin individuals who are fragile are not suitable for the game like softball.

Keywords: Somatotype classification, playing ability, softball male players, body composition

Introduction

The effectiveness of any physical performance has been related to numerous basic, traits found in boys and girls which includes their maturation, body size and types of body. Most of the traits are related to heredity, such as body weight but they are also affected by environment that is the nature and amount of exercise with nutritional aspect.

Studies on body types will be useful in selecting an appropriate physical activity for an individual whose main motive is competition. The hurdlers for example have been found to have long legs and short trunk. (Cureton 1952: Tanner 1964) observed that all hurdlers, who recorded their times in seconds, were all six feet tall.

In softball, there may be mechanical advantage of the shot stature and longer upper extremities among the in-fielders. The long upper extremities will also help them to cover a wider range in the fielding during the game. The small stature of the fielder's both in in-field and out-field also seems to support this hypothesis.

The greater the height of the catcher and pitcher in softball seems to help them to perform good pitching and catching because it helps them to cover maximum range during the game. Therefore, the purpose of the study was to find out the relationship of Somatotype with playing abilities in softball irrespective to their positional play.

Method and Procedure

Twenty five male softball players, who had participated in various Inter-University competitions from Panjab University Chandigarh, were selected as subjects. The age group of the player's subjects was between 18 to 25 years. The Somatotype rating produced by Health and Carter (1967) was selected as it included rating of an individual of the some anthropometric and body composition variables. Further this method of testing the softball players meets the criteria of feasibility of the administrative.

The Anthropometric variables being used were: weight, height, skin fold Measurements, diameters of humerus and femur, Girths of biceps and calf. Height was measured in inches, weight was measured in pounds, muscle growth was measured in centimeter and body fat was measured in millimeters. On the basis of above given measurements the Somatotype was classified into three components:-

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- Endomorphy
- Mesomorphy
- Ectomorphy

3. Coll Antropol. 2013; 37(2):401-405.
4. Barlow MJ, Findlay M, Gresty K, Cooke C. Anthropometric variables and their relationship to performance and ability in male surfers Eur J Sport Sci. 2014; 14(Suppl. 1):S171-S177.

The playing abilities of the subject were judged by a panel of two judges during game situation. The judges have to given marks to each subject out of 5. The score of the judges was the average of the two judges. The 't' test was used to assess the relationship of Somatotype classification to playing abilities in softball players. The formula of product moment correlation was applied.

Findings

The Co-efficient of zero order correlation computed to rating in each Somatotype components and playing abilities in software were presented in table 1

Table 1: Co-efficient of correlation between somatotype classification and playing abilities of softball players

S. No	Somatotype Components	Playing ability in Softball
1	Endomorphy	0.241
2	Mesomorphy	0.321
3	Ectomorphy	0.198

Significant at 0.05 levels, r needed for significance at 0.05 levels with 29 degrees of freedom is 0.355.

Table 1 shows that an insignificant relationship between Endomorphy and play ability in Softball (0.241); Mesomorphy and playing ability in softball (0.321); and Ectomorphy and playing ability in Softball (0.198) was obtained.

Discussion of Findings

The insignificant correlation among Somatotype classification to playing ability of Softball Players may be due to the reason that the game of softball may not be related to any extreme Somatotype components. As it is said that human being does not fall in any particular Somatotype component but they are the mixture of all components of Somatotype.

The insignificant relationship of Endomorphy to playing ability in softball may be due to the fact that softball is now a very fast pace game which requires abundance of speed, strength, endurance agility etc. The insignificant relationship of Mesomorphy to playing ability in softball may be due to the fact that the game of softball required swift moments especially of limbs of upper and lower extremity. In the matter of predominant development of muscle, the suppleness of player can be affected in an adverse manner. That is why insignificant relationship was obtained in Mesomorphy.

The insignificant relationship of Ectomorphy to playing ability in softball may be due to the reason that softball is a game of strength and power which required right amount of muscle development to discharge various functions namely batting, pitching, throwing etc. Hence thin and lean individuals who are fragile were not suitable for the game like softball.

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