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An analysis of selected body composition variables among sportspersons

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Abstract

The study was aimed to analyse the selected body composition variables among the sportspersons. A total of 30 subjects divided into 15 subjects from light to Walter weight (under Walter weight category) and 15 subjects from Walter to heavy weight category (heavy weight category) of 17-25 years of age were selected from homogenous group during all India university competition of boxing held in lovely professional university 2014-15. The “body composition monitor” with scale HBF- 361 was used to collect the data on skeletal muscle, subcutaneous fat and body age. The data was analysed through the SPSS 20 version, by applying the independent t-test. After analysing the data, it was clear that significant difference was found in the (skeletal muscle, subcutaneous fat and body age) body composition of the boxers of Walter weight and high weight category, and the null hypothesis was rejected at 0.05 level significance. Thus it was concluded that there is difference in the body composition of Walter weight and upper weight category of the boxers.

Keywords: Boxers, body composition, under Walter weight, upper weight category

1. Introduction

The field of physical education and sports is affected by the development in science and technology because it is becoming more competitive and innovative day by day. The physical educationists and sports scientists are working hard to develop suitable methods to enhance existing level of performance. There are many reasons for the continuous improvement in performance. The large numbers of young people are coming in contact with systematic coaching for a better selection procedure. Modern coaching methods are improved by the application of the results of research in all the related sciences.

With the progress of modern civilization to the computer era, the field of sports also gets sophisticated beyond the recreational approach. The interest in games and sports has motivated the researchers towards a number of scientific researches and observations. So that researcher was attempting to analyse the body composition among boxers of elite level. In evaluating Physical fitness body composition plays a vital role. The unwanted fat is considered as the prime component of the obesity. Literature on body composition reveals out that in specific sports lean athletes were superior in performance due to their well masculine physique as compared to the athletes that were having with extra added mass (Bullen, 1971). Body composition is almost an important aspect of athlete for enhance or success in athletic performance (Wilmore, 1982) [3]. Composition of athlete's body plays an important role in achieving excellence in sports performance (Mathur and Salokun, 1985) [2].

1.1 Objective of the study

To find out the body composition under different weight category.
To compare body composition of different weight category.

1.2 Hypothesis

The hypothesis of the study was “whether there is any difference in the variables of body composition among under Walter weight category and upper weight category.

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1.3 Significance of the study

The study will be helpful to coaches, physical educationist and trainers in understanding appropriate body composition under different weight category.

2. Methodology

A comparative study was design to investigate the body composition of boxers. A total of 30 subjects were selected for the study and divided them into two equal groups of 15 subjects from light to Walter weight (under Walter weight category) and 15 subjects from Walter to heavy weight category (heavy weight category) of 17-25 years of age were selected with the help of purposive sampling technique from homogenous group of boxing, during all India university

competition of boxing held in lovely professional university 2014-15. The “Body composition monitor” scale HBF-361 was used and the data was collected on the selected variables i.e. skeletal muscle, subcutaneous fat and body age. Two-sample t-test was used to analyse the raw data of under Walter weight category and upper weight category on SPSS 20 version.

2.1 Findings and Interpretations

In the following sections the statistically analysed data has been presented. Results pertaining to analysis of body composition between under Walter weight category and upper weight category of boxers.

Table 1: Analysis of body composition between under Walter weight category and upper weight category boxers.

sports group		N	Mean	Std. Deviation	Std. Error Mean	F	Sig.	t	Sig. value
skeletal muscle	Under Walter weight category	15	36.9867	1.00347	.25909	1.162	.290	5.765	.000
	upper weight category	15	34.5200	1.31866	.34048				
Subcutaneous fat	Under Walter weight category	15	9.2600	1.45249	.37503	2.501	.125	-8.960	.000
	upper weight category	15	15.1600	2.09619	.54123				
body age	Under Walter weight category	15	21.3333	3.90360	1.00791	1.108	.301	-7.952	.000
	upper weight category	15	34.7333	5.22995	1.35037				

* Significant at 0.05 level (t=2.048)

After analysing the raw data through SPSS software the above table was obtained which express the whole picture of the data. The table-1 depicts the mean, S.D and SEM along with the significant value of Equality of Variances and t-value of under Walter weight category and upper weight category boxers on selected body composition variables. Further it has been found that upper weight category boxers have depicted higher mean value for the subcutaneous fat and body age variables whereas the mean value of skeletal muscle for upper weight category is higher than that of under Walter weight category. The calculated ‘t’ value for all the variables is greater than tabulated value (2.048) at .05 level of significance. Hence, the null hypothesis, there is no difference at all between the selected body composition variables, has been rejected. And it is proved that there was significant difference in body composition of under Walter weight category and upper weight category. The graphical representation for the same is also given in fig. 4.1.

mean for subcutaneous fat and body is less than upper weight category So, this is concluded that skeletal muscle, subcutaneous fat and body age is dependent on the weight, so that this will vary with respect to weight from heavy weight to low weight.

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5. References

- Jennifer Scott R. Body composition. Retrieved from web <http://weightloss.about.com/od/backtobasics/f/bodycomp.htm> on 18-11-14
- Mathur DN, Salokun SO. Body composition of successful Nigerian female Athletes. Journal of Sports Medicine. 1985; 25:27-21.
- Wilmore JH. Training for sports and activity- The physiological basis of conditioning process. Allyn and Bacon Inc. 1982; 2:119-137.

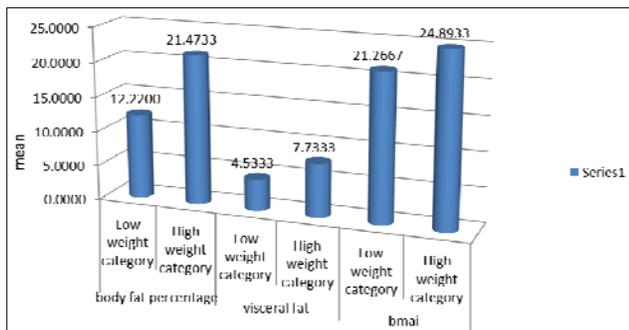


Fig 1

3. Conclusion

This study was designed to analyse the body composition of sportsperson (boxers). The study was found significant difference in the body composition of both the groups (under Walter weight category and upper weight category) of the boxers. The mean of skeletal muscle in upper weight category is lower than that of under Walter weight category whereas the