



AN ANALYSIS OF HEALTH STATUS AMONG THREE CLUSTERS OF PROFESSIONALS

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ABSTRACT

This study was aimed to analyse the health status among three independent clusters of professionals. For the purpose of - study the purposive sampling technique was used by the researcher to select the samples from different clusters. This study was delimited to the professional in sports, physical education and education. A total of 75 subjects independently were drawn from different clusters of 25 from each group, the age of the subjects were ranges between 18-25years. The data for elite sports person was collected 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 selected variables which determine the health status. The data was analysed through the SPSS 20 version, by applying the statistical technique ANOVA (analysis of variance). After analysing the data, it was clear that there is significant difference is found in the skeletal muscle of elite sports person so the null hypothesis is rejected at 0.05 level of significant. Whereas no significant difference was found in the variable total body fat and B.M.I.

KEYWORDS : Elite Sports Person, Health Status.

Introduction

Health status is one of the most important aspects for an individual for successfully survival throughout life, For an ordinary person health status may means to carryout daily task with successfully with-out undue fatigue and enough energy left in the body to carry-out any emergency work. But this concept is not enough for sports person, for a sports person health means a specific/unique level of fitness which is required for sports to complete his different kind of movement throughout match as well as competition without undue of fatigue. The health status of an individual is mainly depends on the body composition variables kumar M (2016). Composition of athlete's body is almost important factor in the success of a team in all athletic endeavors (Wilmore, 1982). Body composition plays an important role in achieving excellence in sports performance (Mathur and Salokun, 1985). Body composition consists of fluid, micro nutrient and fat.

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). So the researcher attempts to compare the health status among three educational professionals.

Objective of the study

To find out the health status of all three groups.
To compare health status of different groups.

Hypothesis

The hypothesis of the study was "there is significant difference in the fat percentage, skeletal muscle and B.M.I among different groups".

Significance of the study

The study will be helpful for students and their parents to choose the profession for their children for making desired health.

Methodology

A comparative study was design to investigate the health status of three different clusters. A total of 75 subjects were selected for the study and divided them into three equal groups of 25 subjects for each groups of sports. The age of the subjects was ranges between 17-25 years. The purposive sampling technique was adopted by the researcher to select the samples from the concern population. The data of elite sports person was collected 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, total body fat and B.M.I. the statistical technique analysis of variance

was used to analyse the data on SPSS 20 version.

Findings and Interpretations

In the following sections the statistically analysed data has been presented. Results pertaining the analysis of health status among three different groups.

Table-1: shows the mean, S.D and SEM. Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
body fat	education profession	25	14.2480	4.38194	.87639	12.4392	16.0568	8.20	21.70
	phy. edu. profession	25	14.5984	3.75725	.75145	13.0475	16.1493	7.30	22.60
	elite sports pweson	25	15.2820	3.59644	.71929	13.7975	16.7665	10.00	22.20
	Total	75	14.7095	3.89714	.45000	13.8128	15.6061	7.30	22.60
skeletal muscle	education profession	25	33.9240	2.95230	.59046	32.7054	35.1426	26.20	38.20
	phy. edu. profession	25	33.9600	2.04104	.40821	33.1175	34.8025	28.70	38.00
	elite sports pweson	25	36.0880	1.64528	.32906	35.4089	36.7671	31.90	38.60
	Total	75	34.6573	2.46846	.28503	34.0894	35.2253	26.20	38.60
B.M.I	education profession	25	21.8264	4.71269	.94254	19.8811	23.7717	16.00	34.80
	phy. edu. profession	25	23.1276	3.32010	.66402	21.7571	24.4981	18.00	31.57
	elite sports pweson	25	22.5920	2.25720	.45144	21.6603	23.5237	18.90	27.50
	Total	75	22.5153	3.56644	.41182	21.6948	23.3359	16.00	34.80

The above table shows the mean, S.d and SEM of all three groups. The mean value of total body fat and skeletal muscle in elite sports person is higher than educational and physical educational profession. Whereas the mean of B.M.I in physical education profession is higher than the that of sports group and educational group.

Table 2: shows the homogeneity of variance.

Homogeneity of variance is one of the most important assumption for applying the analysis of variance. The value of levene statistic need to be insignificant for applying ANOVA. For this study the assumption of homogeneity of variance is not satisfied for the variable skeletal muscle and B.M.I.

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
body fat	.706	2	72	.497
skeletal muscle	4.308	2	72	.017
B.M.I	4.487	2	72	.015

Table no. 3: shows the f value for all the variables. ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
body fat	Between Groups	13.827	2	6.914	.448	.640
	Within Groups	1110.065	72	15.418		
	Total	1123.892	74			
skeletal muscle	Between Groups	76.771	2	38.386	7.387	.001
	Within Groups	374.132	72	5.196		
	Total	450.903	74			
B.M.I	Between Groups	21.384	2	10.692	.837	.437
	Within Groups	919.859	72	12.776		
	Total	941.243	74			

The above table shows the between group variance and within group variance for all three groups along with its p value. The p value for skeletal muscle is significant because the p value associated with skeletal muscle is less than 0.05. Whereas the variable total body fat and B.M.I is insignificant because the p value associated with these variable is greater than 0.05 level of significant. Hence there is no need to show the pear wise comparison for the total body fat and B.M.I. whereas the pear wise comparison for skeletal muscle is given below.

Table no 4: the below table shows the pare-wise comparison for skeletal muscle.

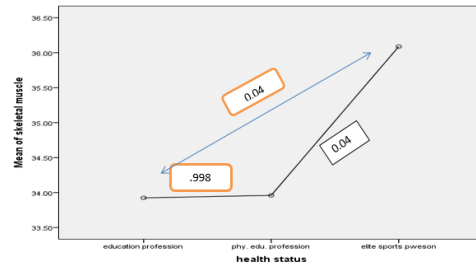
Multiple Comparisons

(I) health status	(J) health status	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
education profession	phy. edu. profession	-.03600	.64475	.998	-1.5790	1.5070
	elite sports person	-2.16400*	.64475	.004	-3.7070	-.6210
phy. edu. profession	education profession	.03600	.64475	.998	-1.5070	1.5790
	elite sports person	-2.12800*	.64475	.004	-3.6710	-.5850
elite sports person	education profession	2.16400*	.64475	.004	.6210	3.7070
	phy. edu. profession	2.12800*	.64475	.004	.5850	3.6710

*.The mean difference is significant at the 0.05 level.

The above table shows the pare-wise comparison of skeletal muscle among the three groups of professionals. The table shows the significant difference between education professionals with elite sports person and physical education professionals and elite sports person because the associated p value for these groups is less than 0.05. Whereas, no significance difference is found between physical education professionals and education professionals. The graphical

representation of the same is given below.



Conclusion

After analysing this study through statistically, it is concluded that there is no difference found in the total body fat and B.M.I among physical education professionals, elite sports persons and education professionals. Whereas significant difference is found in the skeletal muscle between of elite sports person with education and physical education professionals.

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