

Biochemical Differentials Between University and Non University Men Players of Various Disciplines

- Dr. P. Karthikeyan*



Abstract

The purpose of this study was to compare the selected biochemical variables namely high density lipoprotein and low density lipoprotein between University and non University men players of various disciplines. To achieve this purpose of the study, thirty men players who represented various games and sports for Annamalai University during the year 2011-2012 and thirty men non players who did not represent various games and sports during 2011-2012 were selected as subjects at random. The age of the subjects ranged between 18 to 24 years. The following bio chemical variables namely high density lipoprotein and low density lipoprotein were selected as criterion variables. All the subjects were tested on selected criterion variables with standardized test items namely HDL- Cholesterol Precipitating Reagent PEG – PAP Method with qualified lab technician. The collected data were statistically analysed with the independent ‘t’ test to find out the significant difference between university and non university men players of various disciplines on selected biochemical variables. The .05 level of confidence was fixed as the level of significance to test the significance, which was considered as an appropriate. The results of the study revealed that there was no significant difference in high density lipoprotein and low density lipoprotein between university and non university players of various disciplines.

Keywords: Biochemical Variables, HDL, LDL, University and Non University Players

Introduction

The scientific research in the fields of physical education and sports is a precious benefit to athletes, trainers and watches. The physical education scientists have been trying to develop new methods of training and techniques to attain higher level of performance in games and sports. Though research in physical education and sports is new venture, it has already reached a new weigh of technical knowledge. Physiological experiments conducted in recent years have conclusively proved that the performance in any sports activities depends upon the physical fitness and the body type of the athletes.

Low-density lipoprotein (LDL)-- This “bad” cholesterol is the form in which cholesterol is carried into the blood and is the main cause of harmful fatty buildup in arteries. The higher the LDL cholesterol levels in the blood, the greater

the heart disease risk. Desirable blood cholesterol -- Total blood LDL is lower than 130 mg/Dl.

High-density lipoprotein (HDL) --This "good" cholesterol carries blood cholesterol back to the liver, where it can be eliminated. HDL helps prevent a cholesterol buildup in blood vessels. Low HDL levels increase heart disease risk
Borderline high cholesterol -- Total level is between 200 and 239 mg/dL or LDL is 130 to 159 mg/dL

Methodology

The purpose of this study was to compare the selected biochemical variables namely high density lipoprotein and low density lipoprotein between University and non University men players of various disciplines. To achieve this purpose of the study, thirty men university players who represented various games and sports for Annamalai

University during the year 2011-2012 and thirty men non university players who did not represent various games and sports during 2011-2012 were selected as subjects at random. The age of the subjects were ranged between 18 to 24 years. The following bio chemical variables namely high density lipoprotein and low density lipoprotein were selected as criterion variables. All the subjects were tested on selected criterion variables with standardized test items namely HDL- Cholesterol Precipitating Reagent PEG – PAP Method with qualified lab technician. The collected data were statistically analysed with the independent 't' test to find out the significant difference between men university and non university players of various disciplines on selected biochemical variables. The .05 level of confidence was fixed as the level of significance to test the significance, which was considered as an appropriate.

Analysis of The Data

The mean, standard deviation and 't' ratio values on high density lipoprotein of university and non university players of various disciplines have been analyzed and presented in Table I.

Table I The Mean, Standard Deviation and 't' Ratio Values Between University and Non University Players of Various Disciplines on High Density Lipoprotein

Groups	Mean	Standard Deviation	't' ratio value
University players	53.7	1.34	0.12
Non University players	50.8	1.48	

(The table values required for significance at .05 level of confidence with df 58 was 2.002).

The table I shows that the mean values on high density lipoprotein for university and non university players of various disciplines were 53.7 and 50.8 respectively. The obtained 't' ratio value on high density lipoprotein 0.12 was lesser than the table value required for significance with df 58 was 2.002. The results of the study showed that there was no significant difference between university and non university men players of various disciplines on high density lipoprotein.

The mean, standard deviation and 't' ratio values on low density lipoprotein of university and non university players of various disciplines have been analyzed and presented in Table II.

Table II The Mean, Standard Deviation and 't' Ratio Values Between University and Non University Players of Various Disciplines on Low Density Lipoprotein

Groups	Mean	Standard Deviation	't' ratio value
University players	104.7	2.57	1.99
Non University players	107.6	2.43	

(The table values required for significance at .05 level of confidence with df 58 was 2.002).

The table II shows that the mean values on low density lipoprotein for university and non university players of various disciplines were 104.7 and 107.6 respectively. The obtained 't' ratio value on low density lipoprotein 1.99 was lesser than the table value required for significance with df 58 was 2.002. The results of the study showed that there was no significant difference between university and non university men players of various disciplines on low density lipoprotein.

Results

1. No significant difference were found between university and non university men players of various disciplines on high density lipo protein.
2. There was no significant difference between university and non university men players of various disciplines on low density lipo protein.

Reference

1. Arnheim, Damal D. *Essential of Athletic Training*. Saint Louis: Time Mirror/Mosby College Publishers, 1987.
2. Charles, A. and William E. Prentice, *Fitness for College and Life*. Saint Louis: Mosby College Publishers, 1985.
3. Clarke and Clarke, *Application of Measurements to Physical Education*. New Jersey: The Prentice Hall Inc., 1978.
4. Fleishman., Edwin A., *The Structure and Measurement of Physical Fitness*, Englewood Cliffs: Prentice Hall Inc., 1964.
5. Friedberg, Ardy. *The Facts on File Dictionary of Fitness*. Moscow: Brown and Brown Publishers, 1984.
6. Johnson, Barry L. and Jack K. Nelson, *Practical Measurements for Evaluation in Physical Education*. Delhi: The Surject Publications, 1982.
7. Singh, Ajmer. *et al., Essential of Physical Education*. Delhi: Kalyani Publications, 2003.