

A COMPARATIVE STUDY ON PHYSICAL FITNESS AND LIPID PROFILE BETWEEN MALE AND FEMALE IT PROFESSIONAL

A. Vinayagamoorthi and G. Kumaresan

M.Phil scholar in Department of Physical Education, Bharathiar University,
Coimbatore-. Tamil nadu, India.

Assistant Professor in Department of Physical Education, Bharathiar University,
Coimbatore. Tamil nadu, India.

Abstract:

The purpose of this study was to find out the comparative study on physical fitness and lipid profile between male and female it professional. To achieve the purpose of the study 15 male and 15 female in IT professionals from out sours NIC Kendriya Bavan Ernakulum in Kerala state were taken as subjects. The subjects were randomly selected and the age of the subjects ranged from 30-44 years. The subjects were tested in order to find out physical fitness and lipid profile variables of namely Cardiovascular Endurance, Flexibility, Muscular strength and Endurance, Total Cholesterol, Triglycerides, High Intensity Lipid Profile, Low High Intensity Lipid Profile, Very High Intensity Lipid Profile. The analysis of 't' ratio was used to determine any significant difference was present among the independent variables.

KEYWORDS:

Cardiovascular Endurance, Flexibility, Muscular strength and Endurance, Total Cholesterol, Triglycerides, High Intensity Lipid Profile, Low High Intensity Lipid Profile, Very High Intensity Lipid Profile.

INTRODUCTION

In its most general meaning, physical fitness is a general state of good physical health. Obtaining and maintaining physical fitness is a result of physical activity, proper diet and nutrition and of course proper rest for physical recovery. In its simplest terms, physical fitness is to the human body what fine-tuning is to an engine. It enables people to perform up to their potential. Regardless of age, fitness can be described as a condition that helps individuals look, feel and do their best. Thus, physical fitness trainers, describe it as the ability to perform daily tasks vigorously and alertly, with left over energy to enjoy leisure-time activities and meet emergency demands. Specifically true for senior citizens, physical fitness is the ability to endure, bear up, withstand stress and carry on in circumstances where an unfit person could not continue.

A pattern of lipids in the blood. A lipid profile usually includes the levels of total , high-density lipoprotein (HDL) cholesterol, triglycerides, and the calculated low-density lipoprotein (LDL) 'cholesterol. A lipid profile measures total cholesterol, HDL cholesterol, LDL cholesterol, and triglycerides. A physician may order a lipid profile as part of an annual exam or if there is specific concern about CVD, especially coronary artery disease. The National Cholesterol Education Program recommends that individuals age twenty and over have a fasting lipoprotein profile every five years. A lipid profile should be done after a nine- to twelve-hour fast without food, liquids, or medication. If fasting is not possible, the values for total cholesterol and HDL-C may still be useful. If total cholesterol is 200

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milligrams per deciliter (mg/dl) or higher or HDL-C is less than 40 mg/dl, the individual will need to have a follow-up lipoprotein profile done to determine LDL-C and triglyceride levels.

METHODOLOGY

To achieve the purpose of the study 15 male and 15 female in IT professionals from out sours NIC Kendriya Bavan Ernakulum in Kerala state were taken as subjects. The subjects were randomly selected and the age of the subjects ranged from 30-44 years. The subjects were tested in order to find out physical fitness and lipid profile variables as follows

CRITERIAN MEASURE

TABLE-I

S.No	Physical fitness variables	Test item	Unit of measure
1	Cardiovascular Endurance	12 minutes run and walk test	Meters
2	Flexibility	Sit and Reach	Centimeter
3	Muscular strength and Endurance	Sit Ups	Minutes/count
	Lipid Profile Variables	Criteria To Measures	Unite of Measure
4	Total Cholesterol	Modern Laboratory Test	ml/dL
5	Triglycerides	Modern Laboratory Test	ml/dL
6	HDL	Modern Laboratory Test	ml/dL
7	LDL	Modern Laboratory Test	ml/dL
8	VLDL	Modern Laboratory Test	ml/dL

RESULT AND STATISTICAL TECHNIQUE

The statistical analysis of data collected from the comparative study was presented in this chapter. All the subjects (n-30) were tested on selected variables the data was competed on the variables was taken to find out the mean difference by using “t” ratio. Pertaining to present study it processed with appropriate statistical technique, the obtained values are tested at 0.05 levels.

**TABLE-II
SIGNIFICANCE OF MEAN GAIN/ LOSSES ON CARDIOVASCULAR
ENDURANCE BETWEEN MALE AND FEMALE
IT PROFESSIONALS**

Variables	Groups	Mean	S.D	MD	S.E	“t” ratio
Cardiovascular Endurance	Male	1903.33	224.29	1104.66	45.25	24.40
	Female	798.66	101.97			

Significant at 0.05 level of confidence

Table-II Revels that the obtained “t” value 24.40 on cardiovascular endurance observed “t” ratio

are compared with the required critical value 1.753 for 1, 14 degree of freedom. It was observed that the value 24.40 was found as higher than the table value 1.753 it was significant from male and female due to cardiovascular was statistically significant.

**TABLE-III
SIGNIFICANCE OF MEAN GAIN/ LOSSES ON FLEXIBILITY
BETWEEN MALE AND FEMALE IT
PROFESSIONALS**

Variables	Groups	Mean	S.D	MD	S.E	"t" ratio
Flexibility	Male	23.93	3.67	3.20	1.15	2.76
	Female	27.13	3.37			

Significant at 0.05 level of confidence

Table-III Reveals that the obtained "t" value 2.76 on flexibility observed "t" ratio are compared with the required critical value 1.753 for 1, 14 degree of freedom. It was observed that the value 2.76 was found as lower than the table value 1.753 it was significant from male and female due to flexibility was statistically insignificant.

**TABLE-IV
SIGNIFICANCE OF MEAN GAIN/ LOSSES ON MUSCULAR
ENDURANCE BETWEEN MALE AND FEMALE
IT PROFESSIONALS**

Variables	Groups	Mean	S.D	MD	S.E	"t" ratio
Muscular Endurance	Male	8.20	1.93	5.46	0.66	8.27
	Female	2.73	1.22			

Significant at 0.05 level of confidence

Table-IV Reveals that the obtained "t" value 8.27 on muscular endurance observed "t" ratio are compared with the required critical value 1.753 for 1, 14 degree of freedom. It was observed that the value 8.27 was found as higher than the table value 1.753 it was significant from male and female due to muscular endurance was statistically significant.

**TABLE-V
SIGNIFICANCE OF MEAN GAIN/ LOSSES ON TOTAL CHOLESTEROL
BETWEEN MALE AND FEMALE IT
PROFESSIONALS**

Variables	Groups	Mean	S.D	MD	S.E	"t" ratio
Total Cholesterol	Male	211.20	40.38	22.53	15.34	1.46
	Female	188.66	30.53			

Significant at 0.05 level of confidence

Table-V Reveals that the obtained "t" value 1.46 on total cholesterol observed "t" ratio are compared with the required critical value 1.753 for 1, 14 degree of freedom. It was observed that the value

1.46 was found as lower than the table value 1.753 it was significant from male and female due to total cholesterol was statistically significant.

**TABLE-VI
SIGNIFICANCE OF MEAN GAIN/ LOSSES ON TRIGLYCERIDES
BETWEEN MALE AND FEMALE IT
PROFESSIONALS**

Variables	Groups	Mean	S.D	MD	S.E	“t” ratio
Triglycerides	Male	178.46	81.89	88.40	21.38	3.86
	Female	96.06	47.62			

Significant at 0.05 level of confidence

Table-VI Revels that the obtained “t” value 3.86 on triglycerides observed “t” ratio are compared with the required critical value 1.753 for 1, 14 degree of freedom. It was observed that the value 3.86 was found as higher than the table value 1.753 it was significant from male and female due to triglycerides was statistically significant.

**TABLE-VII
SIGNIFICANCE OF MEAN GAIN/ LOSSES ON HDL
BETWEEN MALE AND FEMALE IT
PROFESSIONALS**

Variables	Groups	Mean	S.D	MD	S.E	“t” ratio
HDL	Male	41.26	8.52	8.53	4.18	2.03
	Female	49.80	10.88			

Significant at 0.05 level of confidence

Table-VII Revels that the obtained “t” value 2.03 on HDL observed “t” ratio are compared with the required critical value 1.753 for 1, 14 degree of freedom. It was observed that the value 2.03 was found as lower than the table value 1.753 it was significant from male and female due to HDL was statistically significant.

**TABLE-VIII
SIGNIFICANCE OF MEAN GAIN/ LOSSES ON LDL
BETWEEN MALE AND FEMALE IT
PROFESSIONALS**

Variables	Groups	Mean	S.D	MD	S.E	“t” ratio
LDL	Male	134.21	41.28	14.56	13.87	1.04
	Female	119.65	24.62			

Significant at 0.05 level of confidence

Table –VIII Reveals that the obtained “t” value 1.04 on LDL observed “t” ratio are compared with the required critical value 1.753 for 1, 14 degree of freedom. It was observed that the value 1.04 was found as lower than the table value 1.753 it was significant from male and female due to LDL was statistically insignificant.

**TABLE-IX
SIGNIFICANCE OF MEAN GAIN/ LOSSES ON VLDL
BETWEEN MALE AND FEMALE IT
PROFESSIONALS**

Variables	Groups	Mean	S.D	MD	S.E	“t” ratio
VLDL	Male	35.69	16.37	16.48	4.27	3.85
	Female	19.21	9.52			

Significant at 0.05 level of confidence

Table-IX Reveals that the obtained “t” value 3.85 on muscular endurance observed “t” ratio are compared with the required critical value 1.753 for 1, 14 degree of freedom. It was observed that the value 3.85 was found as higher than the table value 1.753 it was significant from male and female due to VLDL was statistically significant.

DISCUSSION ON FINDINGS

The result of the study shows that the male IT professional has good cardiovascular endurance, muscular endurance, total cholesterol, triglycerides, LDL, VLDL than female. From the results of the present Investigation, It was concluded that, female IT professional has good flexibility and HDL when compared to male.

CONCLUSIONS

Based on the result, following conclusions have been made.

- It was concluded that there was a positive relationship between flexibility and cardio respiratory endurance, muscular strength endurance and cardio respiratory endurance, muscular strength endurance and flexibility and low density lipoprotein and total cholesterol level of male and female IT professionals.
- There was a negative relationship exist between muscular strength endurance and age, cardio respiratory endurance and weight, flexibility and weight, total cholesterol and flexibility, low density lipoprotein and flexibility of male and female IT professionals.

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