



Research article

EFFECT OF EXERCISE AND NATUROTHERAPY ON LIPID PROFILE OF MIDDLE AGED PEOPLE

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Abstract

The purpose of the study was to determine the effect of eight weeks of exercise and naturotherapy programme on lipid profiles among the middle aged people. The subjects for the study were thirty middle aged people, fifteen were categorized into experimental group and other fifteen were categorized as control group. The following variables the selected for the study: Total Cholesterol, High Density Lipoprotein Cholesterol, Low Density Lipoprotein Cholesterol and Triglycerides. For the comparison of these variables 't' test was applied. The study indicated significant changes in total cholesterol, high density lipoprotein and triglycerides of experimental group.

Key words: Exercise, Naturotherapy, Cholesterol, High Density Lipoprotein, Low Density Lipoprotein Cholesterol and Triglycerides.

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INTRODUCTION

Physical fitness is really very significant for leading a happy and well balanced life. Physical fitness reduces the risk of heart and lung diseases. Physically fit individuals tend to have lower resting blood pressure. Everyone wants to maintain one's physical fitness because

owing to physical fitness, one can perform the routine work easily. That's why it is said that physical fitness adds years to one's life. Many people remain under impression that physical fitness is necessary only for sports person because they participate in vigorous activities of

sports and games. A certain level of physical fitness is necessary for a common man too.

People have become lazy and with the advent of modern home appliances there is no need for hard or even moderate physical work. This is a serious threat to the normal function of our body and is the cause of modern day illness like heart attack, obesity, and diabetics. Formerly these diseases that were found only among elderly are now common in the young and middle aged people.

Physical exercise is any bodily activity that enhances or maintains physical fitness and overall health and wellness. It is performed for various reasons, including increasing growth and development, preventing aging, strengthening muscles and the cardiovascular system, Frequent and regular physical exercise boosts the immune system and helps to prevent "diseases of affluence" such as cardiovascular disease, type 2 diabetes, and obesity. Exercise consists of activities that are planned and structured, and maintains or improves one or more of components of physical fitness. Physical activity suggests a wide variety of activities that promotes health and wellbeing.

Naturopathy incorporates a variety of natural approaches (actively through diet/ nutrition and exercise and passively through rest and relaxation) to promote health and well being on all levels: body, mind and spirit.

Naturopathy is complimentary and can be utilized on its own or together with conventional medicine to support health and healing. The mind and the body are one, work together as whole as a whole and constantly interact with and influence each other. Naturopathy always aims to remove the causes of the disease, at the same time restoring normal body activity.

Lipid profile is the pattern of lipids in the blood. A lipid profile usually includes the total cholesterol, high density lipoprotein (HDL) cholesterol, triglycerides, and the calculated low density lipoprotein (LDL) cholesterol. Lipid is a medical term used to describe fats in the blood stream. Total cholesterol =HDL+LDL+VLDL. VLDL is the 1/5 of Triglycerides.

The purpose of the study was to determine the effect of eight weeks of physical exercise and naturopathy programme on lipid profiles among the middle aged people.

METHODS AND MATERIALS

The subjects for the study were thirty middle aged people, fifteen were categorized into experimental group and other fifteen were categorized as control group. For this study the following variables were selected; Total Cholesterol, High Density Lipoprotein Cholesterol, Low Density Lipoprotein Cholesterol and Triglycerides. The experimental group underwent eight weeks training programme with the training schedule prepared by the investigator.

TABLE- I
SCHEDULE OF PHYSICAL EXERCISE

Activity	DURATION	Period
Walking	5 minutes	Eight Weeks
Jogging	10 minutes	
Warm up exercise	10 minutes	
Circuit training/ speed training/ endurance training/ Fitness training	30 minutes	
Warm down exercise	5 minutes	

TABLE-II
ILLUSTRATION OF NATUROTHERAPY PROGRAMME

Food	Cooked foods, unpolished cooked rice, bread made of whole wheat, steamed, boiled, and baked form of food. Uncooked foods like vegetable salads, various fresh juice and fruits. Instructed to avoid fried food and non-vegetarian items like meat, egg, milk products etc. Healthy food should be taken regularly twice a day only
Sleep	Advised to avoid daytime sleep and only 6 to 8 hours sleep a day
Fasting	Recommended a diluted fruit juice fasting once in a week for a full day

STATISTICAL TECHNIQUE

The selected variables for which data were collected from two groups prior to and after experimentation are Total Cholesterol, High Density Very Low Density Lipoprotein Cholesterol and Triglycerides. . For the comparison of these variables' test was applied.

DISCUSSION ON FINDINGS

The data pertaining to the analysis of lipid profile variables of Total Cholesterol, High Density Lipoprotein Cholesterol, Low Density Lipoprotein Cholesterol and Triglycerides among middle aged men have been presented in the Table III & IV

TABLE - III
COMPARISON OF EXPERIMENTAL GROUP PRE-TEST AND POST-TEST ON LIPID PROFILE

Variables	N	Test	Mean	S.D.	't' Ratio
Total Cholesterol	15	Pre-test	229.46	32.95	1.80
		Post-test	210.2	24.98	
HDL	15	Pre-test	50.26	14.82	2.04
		Post-test	55.33	20.59	
		Pre-test	137.13	28.57	

LDL	15	Post-test	127	24.36	1.04
Triglyceride	15	Pre-test	177	34.73	2.83
		Post-test	145.66	24.99	

t value required to be significant at .05 level with 28 degree of freedom is 1.70

In experimental group there is significant difference found in the pre-test and post- test of Total Cholesterol, High Density Lipoprotein Cholesterol and

Triglyceride. In the case of Low Density Lipoprotein Cholesterol there is no significant difference found.

TABLE - IV
COMPARISON OF CONTROL GROUP PRE-TEST AND POST-TEST
ON LIPID PROFILE

Variables	N	Test	Mean	S.D.	't' Ratio
Total Cholesterol	15	Pre-test	225.8	32.84	1.21
		Post-test	212.93	25.2	
HDL	15	Pre-test	50.26	8.52	1.60
		Post-test	54.86	7.08	
LDL	15	Pre-test	135.53	26.99	0.98
		Post-test	126.26	24.21	
Triglycerides	15	Pre-test	166.66	46.77	0.56
		Post-test	159	24.79	

t value required to be significant at .05 level with 28 degree of freedom is 1.70

In control group there is no significant difference found in the pre-test and post- test of Total Cholesterol, High Density Lipoprotein Cholesterol, Low Density Lipoprotein Cholesterol and Triglyceride.

CONCLUSION

The exercise and naturotherapy programme conducted for a period of eight weeks in the study indicated a positive change in Total Cholesterol, High Density Lipoprotein Cholesterol, and Triglycerides in the case of middle

aged experimental group. There is no significant change found in Low Density Lipoprotein Cholesterol but slight decrease found in mean value.

It was concluded that the exercise and naturotherapy can improve High Density Lipoprotein Cholesterol level and at the same decrease the level of Total Cholesterol, Low Density Lipoprotein Cholesterol and Triglycerides Change of lifestyle also can help in improving Lipid profile levels. Take healthy diet, get regular physical activity and maintain good health.

REFERENCES

- [1] Albert, W. W., (1978). The Effect of 12 weeks Quantitative Aerobic Training Programme on the Serum Lipoproteins Fraction in Sedentary Middle Aged Men. "Dissertation Abstracts International.
- [2] Bratton, R. et.al. (1992), " Effect of exercise on serum Enzyme levels in untrained males", The Research Quarterly, vol.33 No.2,
- [3] Chittattukulam Tony, (2011), Prakrithi Chikilsa, Avadi Publications, Kottayam.
- [4] Cohen, A. C.,(1982) "The effect of Varying Intensities of Aerobic Interval Training Upon Lipid Profiles of Sedentary Male Members, Abstract International Dissertation, 42,5054-A
- [5] Hocky. V. Robert (1989) The Pathway of Healthy Living., Saint Lovis Mosby College Publishing
- [6] Kaats, G.R. et. al. (1999) "Effect Of Base Line Total Cholesterol Level In Diet And Exercise Interventions", Journal Of The American Nutrition Association, Vol. 02. No. 01
- [7] Larry, A et.al., (1994), "Aerobic Dance and Serum Cholesterol: An Epidemiologic Study of 11,826 Women". Medicine and Science in Sports and Exercise, 26(5)
- [8] Matson, L.G., Tran, Z. U. and Weltmen, A., (1994), Effect of Exercise Training on Lipid Levels in Men and Women", Medicine and Science in Sports and Exercise, 25(5)
- [9] McNaughton, L. and Davies, P., (1987) The Effects of 10 Week Aerobic Continuing Programme on Serum Lipids, Lipoproteins and Coronary Risk Factor. The J. of Sports Medicine and Physical Fitness 27(1): 296

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