Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The advancement in every walk of life has minimised the physical endeavour to the maximum. The result? Never ending health hazards. Realising the fact that nothing can be substituted for physical activity, many from the sedentary class have started coming out for a walk. No doubt, it is a good sign. But, still a good majority of the people are ready to take up physical activity only on the advice from the cardiologist that it is high time to start with. For many reasons a wrong message is also being carried away that the scientific advancement in the field for medicine and treatment is pretty capable of curing any health problem. When health is available free of cost, why resort to the highly expensive ways, that too, with an absolute uncertainty.

The health benefits of exercise has already been established. Moreover, aerobic type of exercises have an important role to play in maintenance of positive health indices in terms of desirable cholesterol levels and body composition ratios.

The present study was undertaken with interest of observing the effects of aerobic training programme on lipoprotein profiles and body composition variables of middle aged men. The subjects for the study were sixty middle-aged men, aged 40 to 50 years, selected from among the residents of Pattom residential area of Trivandrum; and from among the male teaching staff of M.G. College Trivandrum. The above subjects consisted of thirty sedentary men randomly selected and categorized into an experimental group and a control group, each comprising of fifteen subjects; and thirty middle aged
occasional participants in physical activities, randomly selected and categorized into an experimental group and a control group. Both the experimental groups were given aerobic training for a period of sixteen weeks, four days per week, in a progressive manner. The training programme included jogging and brisk walking. The t-ratio and analysis of covariance were used as statistical measures to find out the effect of training programme on serum lipoprotein and body composition variables.

The aerobic training programme for sixteen weeks proved to be effective in significantly decreasing total cholesterol levels in sedentary men. The HDL-C levels of occasional experimental group showed a significant improvement. Although there have been desirable changes in other parameters of the lipid profile, the values obtained were not sufficient enough to establish a statistical significance.

The training was also good enough to bring desirable changes in body composition variables. Both the experimental groups have shown significant reduction in their body fat.

**Conclusions**

On the basis of the findings of the study, the following conclusions may be drawn.

1. The aerobic training programme conducted for a period of sixteen weeks in the study indicated a positive change in total cholesterol level in case of sedentary experimental group.
2. The findings of the study further revealed an improvement in HDL-C in case of occasional experimental group.

3. The training programme has shown positive but insignificant changes in LDL-C, VLDL-C, and triglycerides.

4. The findings having shown significant reduction in total cholesterol and increase in HDL-C levels, indicates the health benefits of aerobic training programme. The regular aerobic activity can be suggested for the middle-aged men as an attempt to prevent coronary heart diseases and atherosclerosis. The role of HDL-C in reducing the risk of CAD and hypertension has been well established.

5. The results of the study indicates significant reduction in fat weight following the aerobic training programme.

**Recommendations**

1. Following an exercise stress test, aerobic training may be recommended to sedentary individuals, with a view to safeguard them from obesity, atherosclerosis and coronary vascular diseases.

2. A continuous and regular aerobic activity, in an organized manner, has to be suggested for the occasional participants to obtain desired results in their health related fitness.
3. Similar studies may be undertaken by employing subjects of various age groups, with closer ranges so that the intensity and duration of the activity shall be more precisely suggested.

4. Similar studies may be undertaken on patients with cardiovascular diseases and atherosclerosis, on subjecting them for a stress test, under the guidance of a cardiologist.

5. Studies of similar nature may be carried out on women.

6. The study may be replicated with longer durations and intensities of training than that used in the present study.

7. It is also recommended that activities of larger durations may be beneficial in weight control and reducing obesity.