Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Active lifestyle and regular exercise is the way-out to gain desired levels of health fitness and hence the exercise scientists around the world are conducting various research programmes aimed to solve the problems related to the health related fitness. The present research was designed to understand more scientifically the effects of aerobic training, anaerobic training and yogasanas on selected blood lipid profiles, i.e. low density lipoprotein (LDL), high density lipoprotein (HDL) and triglycerides which normally considered as risk factors in the coronary heart disease and thereby to suggest the appropriate training protocols.

To achieve the purpose of this investigation, sixty male students out of one thousand eight hundred and eighty four students (N = 1884) studying different graduation courses were selected randomly as subjects from Government College for Men, Anantapuramu and Sathya Sai Baba National Degree College, Anantapuramu, Andhra Pradesh, India. The selected individuals were divided into three experimental groups and one control group with fifteen subjects (n=15) in each group. Experimental Group-I (ATG=15)) underwent aerobic training, Group-II (ANTG=15) underwent anaerobic training, Group-III (YG=15) underwent yogasana training and Group-IV served as
control group (CG=15). The age of the subjects ranged between 18 and 22 years.

Among the components of blood lipid profiles, the following variables were selected as criterion variables, namely low density lipoproteins (LDL), high density lipoproteins (HDL) and triglycerides. The data on selected dependent variables, viz. LDL cholesterol, HDL cholesterol and triglycerides levels were collected by conducting pre-test and post-test measurements in Rayalaseema Diagnostic Centre, Anantapuramu, Andhra Pradesh, India, a very standard medical technology laboratory, one day prior to and after the training protocols respectively. The blood samples were drawn from the subjects and further processing was done immediately.

To find out the significant differences if any due to the experimental variables in the selected criterion variables, analysis of covariance (ANCOVA) was applied the procedure through which pre-test mean differences are adjusted to the post-test means. Whenever ‘F’ ratio for adjusted post-test means was found significant, Scheffe’s test was used as post-hoc test to determine which of the paired means differed significantly. In all cases the criterion for statistical significance was set at 0.05 level of confidence (P < 0.05).

**Conclusions**
From the analysis of the data, the following conclusions were drawn.

1. The aerobic training, anaerobic training, and yogasanas groups were significantly decreased in LDL levels when compared to control group.

2. The aerobic training group significantly decreased the LDL levels when compared to the anaerobic training and yogasanas groups. There was insignificant difference between anaerobic training and yogasanas groups.

3. The aerobic training, anaerobic training, and yogasanas groups were significantly increased in HDL levels when compared to control group.

4. The aerobic training group significantly increased the HDL levels when compared to the anaerobic training and yogasanas groups. There was insignificant difference between anaerobic training and yogasanas groups.

5. The aerobic training, anaerobic training, and yogasanas groups were significantly decreased in triglyceride levels when compared to control group.

6. The aerobic training group significantly decreased the triglycerides levels when compared to the anaerobic training and yogasanas groups. There was insignificant difference between anaerobic training and yogasanas groups.
Recommendations

1. Aerobic training programmes at a moderate intensity of sixty percent of maximal hear rate is best suited to decrease LDL and triglyceride levels and to increase HDL levels thus control the precipitating factors for the degenerative diseases like coronary heart disease, hypertension, etc.

2. Similar study may be conducted cross sectionals for various populations changing the geographical limitations.

3. Same type of study may be done for various ages of the same geographical population or to the different geographical area population.

4. Similar study may be conducted for longitudinal studies with an increased experimentation period.

5. Many similar studies may be conducted changing the intensity factor of the experimentation training.

6. Studies may also be taken up for understanding the effects of the different combinations of different types of exercises.

7. Studies may be conducted taking into consideration of different protocols of the different combinations of exercise regimes.

8. Similar studies may be conducted for the fairer sex also keeping age and other factors into consideration for experimental variables.
9. Similar type of studies also may be conducted to know the effects of the same experimental trainings on the other physiological variables that may be related to the coronary heart disease, like hypertension, etc.

10. Similar studies may also be conducted with different simulated conditions like modified weather conditions. The controlled weather may be of different temperatures, different humidity levels, etc.

11. Studies may also be conducted on similar lines with different nutritional plans.