Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

Our increased reliance on technology has substantially lessened work-related physical activity, as well as the energy expenditure required for activities of daily living like cleaning the house, washing clothes and dishes, mowing the lawn and traveling to work. As a result, more time is available to pursue leisure activities. The unfortunate fact, however, are that many individuals do not engage in physical activity during their leisure time. Although the human body is designed for movement and strenuous physical activity, exercise is not a part of the average lifestyle. Exercise scientists and health/fitness professionals have maintained that regular physical activity is the best defense against the development of many diseases, disorders and illnesses. The importance of regular physical activity in preventing disease and premature death and in maintaining a high quality of life.

Primary goal of the exercise program is to develop and maintain cardio-respiratory fitness, prescribe aerobic activities using large muscle groups in a continuous, rhythmical fashion. In the initial and improvement stages of the exercise program, it is important to closely monitor the exercise intensity. In addition to walking, jogging and cycling, there are other exercise modalities that provide a sufficient cardio-respiratory demand for improving aerobic fitness. Indian philosophy of yoga also claims the role of such non-exercising technique
in improving the inner self and positive effects on various body functions. However, a comparative study of physical exercise with yoga is meager and therefore, the present study was planned to see the effect of respective techniques on selected variables.

The purpose of the present study was to find out the effect of physical exercises and yoga practices on health related physical fitness, basal metabolic rate, and lipid profiles of obese adolescents. To achieve the purpose of this study, a qualified physician examined 750 male students in 16 schools, in and around Tirunelveli Town, Tamil Nadu, India, and found out 250 obese adolescents out of 250 obese adolescents forty five obese adolescents were selected at random, their age ranged from 13 to 18 years as per the school records. The selected subjects were divided into two experimental groups and a control group with fifteen subjects in (n=15) each. Experimental group I underwent physical exercise (PEG), Group II underwent yogic practice (YPG) and Group III served as a control group (CG) for the training period of 12 weeks. Subjects of the three groups (PEG, YPG & CG) were tested on selected criterion measures namely health related physical fitness variables, BMR and lipid profiles prior to and after the 12 weeks of a training period.

The data collected from the three groups before and after the experimental period was statistically examined to find out the significant improvement using the analysis of covariance (ANCOVA). Whenever the 'F' ratio was found to be significant, Scheffe’s test was
used as post hoc test to determine which of the paired means differed significantly. In all cases, the criteria for statistical significance were set at 0.05 level of confidence (P<0.05).

CONCLUSIONS

In the present investigation, as a result of two training programmes the following improvements occurred on health related physical fitness, basal metabolic rate, and lipid profiles of obese adolescents.

1. It was concluded from the results of the study that the physical exercises and yoga practices groups showed significant improvement in muscular strength and endurance, flexibility, and cardio respiratory endurance when compared with a control group as well as pre test.

2. Regular practice of physical exercises and yoga practices significantly reduced the level of body mass index, body fat percentage and fat free mass.

3. 12 weeks of physical exercises and yoga practices significantly reduced the basal metabolic rate.

4. Systematic and well planned physical exercises and yoga practice programs significantly reduced the total cholesterol, LDL cholesterol, triglycerides in obese adolescents.
5. Due to the influence of physical exercises and yoga practices significantly increased the level of HDL cholesterol, when compared with a control group as well as pre test.

6. The physical exercise training has differed significantly in all the dependent variables when compared to the yogic training systems.

7. Physical exercise training was a suitable training system to improve the health related fitness parameters, BMR and improve the lipid level in blood among the obese adolescents.

**RECOMMENDATIONS**

The following recommendations are made on the basis of the study.

1. Similar study may be conducted on other Physical, Physiological and psychological variables.

2. Similar study may be conducted for diabetic’s patients.

3. Similar studies may be conducted for people suffering from degenerative diseases like obesity and hypertension.

4. Similar studies may be undertaken for different age groups in both sexes at different levels.

5. Similar research is necessary to explore the effects of different exercise programme for the obese students.

6. Similar studies can be conducted with the same variables by selecting the subjects from other environmental aspects.
7. Need for high levels of physical activity to maintain good health and weight loss. 45-60 minutes per day of moderate intensity physical activity is required to maintain a significant weight loses.

8. Recommended that there is a need for more research in this field.

9. Obesity tests may be conducted periodically at school and college levels so as to estimate the level of obesity every individual student and to recommend the remedial measures if any.

10. Obesity testing centre may be established for measuring the level of obesity, equipped with infrastructure facilities and qualified personal for every Taluk of Tamil Nadu.

11. Obesity awareness week may be conducted annually throughout the State in order to have fit citizens.

12. This study may be useful for the people to explore more about yogic practices.