CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

Today’s life mostly depends more on science and technology. Most of our work is done by a machine or a computer and we pay more attention to our television sets, a contributor to our sedentary life style. Human body is designed for movement and intense physical activity.

Fitness is a way of life, but, modern life is full of stress and to overcome them, the individual needs to be physically fit. For a happy and complete life, fitness is very much necessary. A person is “physically fit”, when he meets a specific level or standard of physical performance for a specific situation, occupation or activity. Physical fitness makes you feel mentally sharper, physically comfortable and easeful and we are better able to cope with the demands that everyday life makes upon us. But the lack of physical activity in the average life will lead to hypo–kinetic disease such as hypertension.

The present study is one such an effort to suggest a method to develop of fitness for hypertension and reduce the complication of hypertension. The purpose of the present study is to find out the “Effects of physical exercise and yogic exercise on selected physical, physiological and biochemical variables of hypertensive patients”.

To achieve this purpose of the study, 90 middle aged male hypertensive patients were randomly selected from surampatty area in Erode district. Their age ranged between 30 and 45 years. They were randomly divided into three equal groups of 30 each and assigned to experimental groups I, II and control group. Experimental group I acted as physical exercise group which is brisk walking everyday and experimental group II as yogic exercise everyday training such as Sukhasana, Virasana, Utthita Trikonasana, Vakrasana, Pachimottanasana, Bhusangasana, Shalabasana, Usattasana, Nadi sodana Pranayama and Savasana and group 3 as a control group which does not participate in any specific training, but they were in conventional exercise during the training period.
The experimental groups were treated with their respective training programs everyday for a period of 12 weeks. Every day the training session was executed for 20 – 90 min approximately, including warming up and warming down periods. The requirements of the experimental procedures, testing as well as exercise schedules were explained to them so as to avoid any ambiguity in the effort required. All the subjects were tested on the selected physical variables of grip strength, flexibility and body mass index by using grip dynamometer, sit and reach test, stadio meter and weighing machine and the physiological variables of percent body fat, resting heart rate, resting systolic blood pressure, resting diastolic blood pressure and cardiovascular endurance were tested by using plastic skin fold caliper, stethoscope, sphygmomanometer, coopers 12 min run / walk test and the biochemical variables of total cholesterol (TC), High Density Lipo Protein (HDL) and Low Density Lipo Protein (LDL) were tested by using lab technicians from biomedical lab. The test is conducted prior to and after completion of 12 weeks of training program.

Analysis of covariance (ANACOVA) was applied to compare the effect of the physical and yogic training programs on the selected physical, physiological and biochemical variables of the hypertensive patients for this study. The level of significance to test F – ratio obtained by the analysis of covariance was fixed at 0.05 level of significance, which was considered to be an appropriate view of the fact that very high sophisticated equipments were used for stringent levels of significance. Further, wherever the obtained ‘F’ ratio was found to be significant for adjusted post – test means, Scheffe’s post hoc test was used to determine which of the paired means difference was significant.

CONCLUSIONS

Based on the results of the study the following conclusions were drawn.

1. Physical exercise produced a significant development on grip strength, body mass index, percent body fat, resting heart rate, resting diastolic blood pressure, cardiovascular endurance, total cholesterol, high density lipo protein and low density lipo protein better than the yogic practice did, except flexibility and resting systolic blood pressure.
2. Yogic practices programme produced a significant development on flexibility and resting systolic blood pressure better than the physical exercise programme could.

RECOMMENDATIONS

From the findings of this study, it is recommended that the selected intensities of physical exercises and selected asanas could be utilized as useful methods to improve the physical, physiological and bio-chemical variables among male hypertensive patients.

To reduce body mass index, percent body fat, resting heart rate, resting diastolic blood pressure, total cholesterol, Low Density Lipo Protein (LDL) and to increase grip strength, cardiovascular endurance and High Density Lipo Protein (HDL) the selected intensities of physical exercises could be used.

To increase flexibility and to reduce resting systolic blood pressure the selected intensities of yogic practices could be used.

SUGGESTIONS FOR FURTHER RESEARCH

1. The same study may be conducted on female hypertensive patients.
2. The same study may be conducted to stage II and stage III hypertensive patients.
3. Physical exercise and yogic practices may be recommended for the improvement of general fitness.
4. Yogic practice does not require any equipment. Hence, it may be recommended for school children as well as for old age persons for prevention and rehabilitation of many diseases such as diabetes, asthma, arthritis, back pain, obesity and cardiac problems.
5. Similar study may be conducted for longer duration and to find out various physical, physiological and biochemical changes of hypertensive patients.