CHAPTER 5

Summary, Conclusions and Recommendations
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

Aerobic exercise refers to exercise that involves or improve oxygen consumption by the body. Aerobic means with oxygen and refers to the use of oxygen in the body’s metabolic or energy generating process. Aqua aerobics are instrumental in improving the cardiovascular fitness and also result in better endurance through use of muscles, which gain in strength.

This research was to find out whether there would be any significant improvement on selected variables as a result of step aerobics, floor aerobics and aqua aerobics exercise. Hundred and twenty students from teacher training institutes in Coimbatore were selected randomly as subjects. The selected subjects were in the age group of 18 to 22 years. The subjects were randomly divided into four groups of 30 subjects in each group. For the present study the physical fitness variables endurance, muscular strength and following dependent and independent variables were selected. Physiological variables selected were VO$_2$ max, vital capacity and anaerobic power. Psychological variables intelligence quotient, mental health and cognitive style were selected.

Pre test and post test randomized group design was applied to this research. All the subjects were measured of the selected physical, physiological and psychological variables. Experimental Group I was assigned to undergo
floor aerobic exercises, experimental group II was assigned to undergo step aerobic exercises, experimental group III was assigned to undergo aqua aerobic exercises and the control group was not given any treatment. The experimental period was for 12 weeks. After the experimental treatment, all the subjects were measured of the selected physical, physiological and psychological variables. The pre test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences.

5.1.1 LEVEL OF SIGNIFICANCE

The subjects were compared on the effect of step aerobic, floor aerobic and aqua aerobic exercises on selected criterion variables among students of teacher training institutes. The analysis of covariance (ANCOVA) was used to find out the significant difference if any, between the groups on selected criterion variables separately. In all the cases, .05 level of confidence was fixed to test the significance, which was considered as appropriate.

The results proved that there were significant differences due to step aerobics, floor aerobics and aqua aerobics on physical variables: endurance, muscular strength and speed, physiological variables: VO$_2$ max and vital capacity. There were no significant differences due to experimental treatment on physiological variable, anaerobic power and psychological variables intelligence quotient, mental health and cognitive style.
5.2 CONCLUSIONS

Within the limitations and delimitations of this study, the following conclusions were drawn:

1. It was concluded that twelve weeks step aerobics, floor aerobics and aqua aerobics significantly altered the physical fitness variable, endurance of the trainees of teacher training institutes and step aerobics was better than floor aerobics.

2. It was concluded that step aerobics, floor aerobic and aqua aerobics significantly improved the physical fitness variable, muscular strength of trainees of the teacher training institutes and step aerobics was better than floor aerobics and aqua aerobics.

3. It was concluded that step aerobics, floor aerobic and aqua aerobic exercises significantly improved the physical fitness variable speed of the trainees of teacher training institutes and step aerobics was better than aqua aerobics.

4. It was concluded that step aerobics, floor aerobic and aqua aerobic exercises significantly improved the physiological variable VO$_2$ max of the trainees of teacher training institutes and step aerobics was better than aqua aerobics floor aerobics and aqua aerobics.

5. It was concluded that step aerobics, floor aerobic and aqua aerobic exercises significantly improved the physiological variable vital capacity of
the trainees of teacher training institutes and there was no significant
differences between the experimental groups, step aerobics, floor aerobics
and aqua aerobics.

6. It was concluded that step aerobics, floor aerobics and aqua aerobic
exercises did not significantly altered the physiological variable,
anaerobic power among the trainees of teacher training institutes.

7. It was concluded that step aerobics, floor aerobics and aqua aerobic
exercises did not significantly altered the psychological variable,
intelligence quotient among the trainees of teacher training institutes.

8. It was concluded that step aerobics, floor aerobics and aqua aerobic
exercises did not significantly altered the psychological variable, mental
health among the trainees of teacher training institutes.

9. It was concluded that step aerobics, floor aerobics and aqua aerobic
exercises did not significantly altered the psychological variable,
cognitive style among the trainees of teacher training institutes.

5.3 RECOMMENDATIONS

This study proved that there was significant improvement in selected
physical fitness variables and physiological variables among teacher training
institutes Hence it was recommended that physical educationists, coaches and
sports administrators and teacher training institute students to include suitable
step aerobics, floor aerobics and aqua aerobic exercises to improve their physical fitness and physiological levels.

It was recommended that step aerobics, floor aerobics and aqua aerobics requires simple methods and near no equipments. these exercises can be practiced by all for the overall improvement of physical and physiological variables.

Because of the advantage of simplicity of the aerobic exercises, these exercises can be included in the physical education curriculum of the students at all levels.

5.4 SUGGESTIONS FOR FURTHER RESEARCH

During the course of this research, the investigator come across a number of ideas and based on the experiences gained, the following suggestions are made for further research.

1. A research study on the effect of step aerobics, floor aerobics and aqua aerobic exercises is suggested to find out the core stability and balance may also be conducted since these exercises may work well on the core muscles.

2. A similar study may be conducted for different age groups of teacher training institutes' trainees.
3. This study confined itself to study the effect of men students of teacher training institutes, a similar study may be conducted among women students of teacher training institutes.

4. A similar research may be conducted to find out the effect of step aerobics, floor aerobics and aqua aerobics among sports men and women of different sports and games.

5. Researches to find out the relationship between the aqua aerobics training and swimming performance, step aerobics and athletic performances, floor aerobics and sports skills may be conducted.

6. Studies comparing the effect of aerobic exercise of longer duration and shorter duration of training periods may be undertaken to determine the optimum required to alter the selected physical, physiological and psychological variables.