CHAPTER - V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS
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Summary

Training is not a novelty or a recent discovery. It existed both in ancient Egypt and later in Greece where people systematically trained for both military and Olympic endeavours. Today, through training, as in ancient times, the athlete prepares himself/herself for a definite goal. In order to elevate athletic performance, the main scope of training centers on increasing the athlete's working capacity and skill capabilities, as well as developing strong psychological traits.

Training is a systematic athletic activity of long duration, progressively and individually graded aiming at modeling the human physiology and functions to meet demanding tasks. Though many methods prevail to develop the performance in hockey, the role of varied method of circuit training packages is an undisputed one. Circuit training is now a popular activity utilized by both men and women of all ages as an attempt to improve physical condition and sports performance. However, there is still much controversy concerning the beneficial effects of method of circuit training with varied frequencies.
In this context, the investigator made an attempt to investigate the effects of varied circuit training packages of different frequencies on Bio-motor and Hockey skill performance variables. The purpose of the study was to find out the effect of varied circuit training packages of different frequencies on speed, power, agility, cardio respiratory endurance, dribbling, hitting, pushing and goal shooting of inter collegiate level male hockey players.

To achieve the purpose of the study, forty students from K. Ramasamy Arts College and National Engineering College, Tamil Nadu, India were selected randomly as subjects. Only male students were selected as subjects for this study. The age of the subjects ranged from 18 to 25 years. The students participated in the inter collegiate tournaments without undergoing any specific and systematic training.

The selected subjects were randomly assigned to four groups of ten each as four experimental groups. The first experimental group underwent circuit training package A for 2 days per week, second experimental group underwent circuit training package A for 3 days per week; third experimental group underwent circuit training package B for 2 days per week and fourth experimental group underwent circuit training package B for 3 days per week. The subjects were free to withdraw their consent in case they felt any discomfort during the period of
their participation. But there were no dropouts in the study. A qualified physician examined the subjects medically and declared that they were fit for the study.

The following variables were selected as criterion variables namely speed, power, agility, cardio respiratory endurance, dribbling, hitting, pushing and goal shooting. All the subjects were tested on selected criterion variables prior to and immediately after the training period. The data on speed, power, agility and cardio respiratory endurance were collected by administering 50 metres run, bunny hops, shuttle run and 12 minutes run tests respectively. The data on hockey skill performance variables like Dribbling, Hitting, Pushing and Goal shooting were collected by administering Stewart Pither's hockey skill tests.

The collected data were analysed statistically by using dependent 't' test to determine the differences, if any, among the groups prior to and immediately after the training period on selected criterion variables separately. Two way Analysis of covariance (ANCOVA) was used to determine the differences, if any, among the adjusted post test means on selected dependent variables separately. Whenever the 'F' ratio for adjusted test was found to be significant, the scheffe's test was applied as a post-hoc test to find out paired mean differences. The level
of significance was fixed at 0.05 level of confidence, which was considered as appropriate.

**Conclusions**

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

1. Four experimental groups namely circuit training package A (interval method) for two days and three days per week groups, and circuit training package B (continuous method) for two days and three days per week groups have achieved significant improvement on speed, power, agility, cardio respiratory endurance, dribbling, hitting, pushing and goal shooting.

2. Significant differences were found among circuit training package A (interval method) for two days and three days per week groups, and circuit training package B (continuous method) for two days and three days per week groups towards improving the selected criterion variables such as speed, power, agility, cardio respiratory endurance, dribbling, hitting, pushing and goal shooting.

3. Circuit training package A (interval method) for three days per week group was found to be better than circuit training
package A for two days per week groups, and circuit training package B (continuous method) for two days and three days per week groups to increase speed, power and agility in the game of hockey.

4. Circuit training package B (continuous method) for three days per week group was found to be better than circuit training package A (interval method) for two days and three days per week groups, and circuit training package B for two days per week groups to increase cardio respiratory endurance, dribbling, hitting, pushing and goal shooting in the game of hockey.

**Recommendations**

1. In the present study, it was concluded that speed, power and agility were improved by circuit training package A for three days per week. Hence, it is recommended to the coaches, trainers and physical educators to adopt these findings to improve speed, power and agility for their athletes.

2. In the present study, it was concluded that cardio respiratory endurance, dribbling, hitting, pushing and goal shooting in the game of hockey were improved by circuit training package B for three days per week. Hence, it is recommended to the coaches, trainers and physical educators to utilize the package to improve cardio
respiratory endurance, dribbling, hitting, pushing and goal shooting in
the game of hockey.

3. A similar study may be conducted by selecting biochemical variables as criterion variables.

4. A similar study may be attempted by selecting the state or national level athletes or players as subjects.

5. A similar study may be conducted on female subjects.

6. A similar study may be undertaken and its influences on psychological and physiological parameters may be assessed.