CHAPTER V

SUMMARY CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

Soccer players are well known for their incredible endurance, running an average distance of six miles during a 90 minute match. However, the game is never played at one speed. Soccer is more about power, consisting of burst of speed, long distance strikes and leaping goal tenders staving off attacks from airborne forwards. Since soccer is such a fast paced game based on power, the best work outs for soccer players include plyometric exercises, ploys allow muscles achieve maximum force in the shortest time by using the stretch - shortening cycle (ssc) the key to running faster and jumping higher. Each soccer position is unique, so you cannot take a one size fits all approach with your soccer plyo work out. To increase power specific to your position, make sure to perform plyos that match how you play soccer.

Resistance training is another name for exercising the muscles using an opposite force that is dumbbells or resistance bands resistance training, toning and weight training are one and the same activity, they require the use of resistance to increase muscle size and strength resistance training can be done using barbells, dumbbells, resistance bands, and even by using one's own body as resistance.

In the present study, the investigator has been quite enthusiastic to find out the changes brought about by the influences of plyometric training with soccer skill practice, resistance training with soccer skill practice and combined training (plyometric and resistance) with soccer skill practices on motor fitness variables (speed, agility, explosive power and muscular endurance),physiological variables (cardio respiratory endurance ,resisting heart rate ,recovery heart rate, systolic and diastolic blood pressure and body max index),and soccer playing ability (passing, dribbling and shooting)

To achieve this purpose, 80 soccer players from Meenakshi College of Engineering, Chennai, who participated in the intramural tournaments, were randomly selected and their age ranged from 18 to 24 years. They were randomly assigned into four groups of which one group served as plyometric training group (N=20), second group as resistance training group (N=20), third group as combined training group (plyometric and resistance) (N=20) and the fourth group served as control group (N=20). The selected dependent variables were measured prior to (pre

test), after 6 weeks (mid test) and after 12 weeks (post test) of the various training and control groups.

The selection of subjects as soccer players and assignment of treatment were at random. The subjects were not equated relaction to the factor in which they were examined. Hence, the differences among the means of pre test have to be taken into account during the analyses of post test differences among the means. This was achieved by the application of analysis of covariance, where in the final means adjusted for the differences in the initial means and the adjusted means were tested for significance. Whenever, the adjusted post test means were found significant, the Scheffe's post-hoc test was administered to find out the significant differences, if any, between paired means.

One way repeated measures analysis of variance on the selected variables of pre, mid and post tests of all the groups were applied to find out significant difference and further to indicate which of the paired means had a significant difference, the Newman Keuls post hoc test was applied.

In all cases, to test the level of significance, 0.05 level of confidence was used. It was considered as sufficient for the present study.

5.2 CONCLUSIONS

Based on the findings of the study, the following conclusions were drawn

1. Plyometric training with soccer skill practices for 12 weeks had significantly improved motor fitness (speed, agility, muscular endurance and explosive power) , physiological (cardio respiratory endurance, BMI, resting pulse rate, recovery pulse rate, systolic blood pressure and diastolic blood pressure)and playing ability (shooting, dribbling and passing) among college soccer players.

2. The results indicated that though plyometric training significantly improved speed and agility of soccer players after twelve weeks, the improvement was not significant in these variables between pretest and mid test and mid test and post test. The steady improvement of these factors from pre test through mid test to the post test ended in significant improvement where the progress sustained.

3. Resistance training with soccer skill practices for 12 weeks had significantly improved motor fitness, physiological and playing ability variables among college soccer players.

4. However, the difference between, mid test and post test in agility due to the effect of resistance training did not show any significant improvement. A total period of 12 weeks was needed to make any improvement increasing agility among soccer players.

5. Resistance training did not show any significant improvement in cardiorespirately endurance between 6 weeks (mid test) and 12 weeks (post test) among soccer player.

6. Combined training (plyometric and resistance) with soccer skill practices for 12 weeks had significantly improved motor ability, physiological and playing ability variables among soccer players.

7. Though a six weeks period of combined training between pre test (initial) and mid post (6 weeks), and mid test (6 weeks) and post test did not record any significant difference in improvement in speed separately, a total period of 12 weeks of combined training significantly improved speed among soccer players.

8. Combined training did not indicate any significant improvement in agility between mid test (6 weeks) and post test (12 weeks) but a total period of 12 weeks of combined training had recorded significant improvement in agility among soccer players.

9. In the first phase of 6 weeks (between pre test and mid test),combined training did not significantly increase cardio resperetaly endurance among soccer players, indicating that 6 weeks training is insufficient to record any significant change in cardio respiratory endurance.

10. It was also observed that there were significant statistical differences between the post test scores in motor fitness, physiological and playing ability variables among plyometric, resistance and combined training groups on soccer players.

11. It was observed from the descriptive analysis tables1, 2 and 3, that combined training (plyometric and resistance) had shown greater influence in all the dependent variables than plyometric training and resistance training with skill practices in that order.

12. In all the three training schedules, playing ability among soccer players was significantly improved as skill practices in soccer were affixed in the schedules with equal intensity. As

the subjects were soccer players, they participated in skill practices with zeal and enthusiasm.

5.3 RECOMMENDATIONS

Athletic development is based on the snowflake principle: no two athletes are identical likewise, neither will they begin their training at the same point of programme at the same rate. Consequently, training programs for all athletes should be as individualized as possible – to the athletes and to the sports and the importance of individualized program design groups as the level of competition increase.

Such studies in training methods and physiology to create the training workouts and modify them that perfectly fit their capabilities and ambition. In that way, the following recommendations are laid down by the investigator based on the findings of this study which would help the profession in general and coaches, trainers and players in particular.

5.3.1 RECOMMENDATIONS FOR IMPLICATION

1. Coaches, trainers and players may take efforts to incorporate plyometric training, resistance training and combined training packages with skill practices as a regular programme for soccer players in their colleges which would in turn improve their performance at inter collegiate and inter university level as well.

2. Based on the mid and post test results, training packages could be utilized either for 6 weeks or 12 weeks to improve the motor fitness, physiological and playing ability components among soccer players.

3. Indicating their individualized improvement on the scores in the variables by showing the records on pre, mid and post tests, each soccer player may be motivated to continue participation in the programme and intensify the same accordingly.

4. It is evident from the results of the study that skill practices in a game go hand in hand with the motor fitness and physiological variables to be improved along with training packages. Hence, coaches and trainers shall keep this factor in mind to include skill practice along with the training packages.

5.3.2 RECOMMENDATIONS FOR FURTHER STUDY

1. A study may be conducted to find out the influence of the above packages of training on other motor fitness and physiological variables and biochemical variables as well.

2. A similar study with greater intensity of training may be conducted on inter university, state level and national level soccer players.

3. A similar study may be conducted for female soccer players in colleges and also at school level.

4. A similar study may be conducted for subjects in other games and track and field events.

5. A similar study may be conducted to find out the relative effects of plyometric and resistance training on soccer and other games.