SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

This study was undertaken to find out the influence of complex training with core exercise programme on selected bio motor ability physiological and skill related performance variables among football players. To achieve this purpose sixty inter collegiate football players were selected at random from AcharyaNagarjuna University, district Guntur, Andhra Pradesh and their age ranged from 18 to 25 years. They were divided into four equal groups of fifteen subjects each. Group ‘A’ underwent complex training, Group ‘B’ underwent core exercise programme, Group ‘C’ underwent complex training with core exercise programme and group ‘D’ control group.

During the training period, the three experimental groups underwent their respective training programme, three sessions per week on alternate days for twelve weeks in addition to their regular programme. Control group do not participate any of the training programme apart from their regular programme. The selected subjects were tested on selected criterion variables.

The bio motor ability variables selected for the study such as agility, balance, coordination, explosive strength, flexibility, muscular endurance, muscular strength and speed. The above criterion variables were assessed by SEMO test, modified bass test, Scott obstacle race test, standing broad jump, sit and reach test, bent knee sit up, pull ups and 50 yard dash respectively.

The physiological variables selected for the study such as systolic blood pressure, diastolic blood pressure, resting pulse rate and VO₂ max. The above criterion variables were
assessed by sphygmomanometer, radial artery of the wrist and cooper 12 minutes run/walk respectively.

The skill related performance variables selected for the study such as goal kicking for accuracy, ground passing for accuracy, air passing for accuracy, dribbling, juggling I and juggling II. The above criterion variables were assessed by Kahun test.

Prior to and after the training program, the subjects were tested for all the selected criterion variables. The collected data were analyzed statistically analysis of covariance (ANCOVA) was used to determine the differences, if any among adjusted post-test mean on selected dependent variables separately. Wherever the F-ratio for adjusted post-test mean was found to be significant, the Scheffe’s test was applied as post-hoc test to find out paired mean differences. In all cases, 0.05 level of confidence was selected to test the hypotheses.

Conclusions

Base on the result of the study the following conclusion were drawn.

Bio-Motor ability Variables

1. The bio motor ability variables namely agility, balance, explosive strength, flexibility, coordination, muscular endurance, muscular strength and speed significantly improved by three experimental groups when compared with control group.

2. The complex training with core exercise programme group was better than the complex training group and core exercise programme group on agility, balance, coordination, explosive strength and speed.

3. The core exercise programme group was better than complex training group and complex training with core exercise programme on muscular endurance.
4. The complex training was better than core exercise programme group on agility, coordination, explosive strength, muscular strength and speed.

5. The core exercise programme group was better than complex training on balance and muscular endurance.

6. Further it was concluded that there was no significant difference between complex training group, core exercise programme group and complex training with core exercise programme group on flexibility.

**Physiological Variables**

1. The resting pulse rate and VO\textsubscript{2} max significantly improved by three experimental groups when compared with control group.

2. There was no significant difference existing among the three experimental groups on resting pulse rate and VO\textsubscript{2} max.

3. Further it was concluded that there was no significant difference on systolic blood pressure and diastolic blood pressure due to the complex training, core exercise programme and complex training with core exercise programme.

**Skill related Performance Variables**

1. The skill related performance variables namely goal kicking for accuracy, ground passing for accuracy, air passing for accuracy, dribbling, juggling I and juggling II significantly improved by three experimental groups when compared with control group.
2. The complex training with core exercise programme group was better than the complex training group and core exercise programme group on selected skill related performance variables.

3. Further it was concluded that there was no significant differences between complex training group and core exercise programme group on selected skill related performance variables.

**Recommendations**

Based on the findings of the study, the following suggestions were made by the investigator to create the idea for further study.

1. Similar study may be conducted on anti-oxidative enzyme markers in blood, Lipid profile, hormonal responses pattern, anthropometric variables, morphological variables, and psychological parameters.

2. The more studies may be conducted with the combination of complex training such as swiss ball exercises, sling exercise, medicine ball exercises, pilate’s exercises, yoga, step aerobic exercises, floor aerobic exercise, ladder exercises and SAQ training.

3. The investigator suggest that similar study may be conducted with other team games skill related performance variables and playing ability such as Hockey, Basketball, Hand ball, Volley ball, Ruby and Kabaddi.

4. The same study may be conduct with the individual events such as hurdles, high jumpers, long Jumpers, throwers, teak wondo, and wrestlers.

5. Furthermore research may be conducted on core exercise programme with combination of other trainings such as parkour training, circuit training, continuous
running, indigenous exercises, callistinic exercises, interval training among obesity problem peoples, Sedentary peoples and School children.

6. The personal experience of the research scholar on the bases of this study express that the training programme of this study will assist to coaches or others for planning the training programme to train their athletes.

7. Comparative studies may also done on different advance training such as concurrent training, compound training, contrast training, split training, high intensity training, and speed training.

8. Furthermore number of studies may be conducted on different training with the combination of plyometric training.

9. Isolated training research also may be conduct on different parameters.

10. The same study may be replicate with women football players with variation in load of physical work outs of training programme.