

CHAPTER - V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. SUMMARY

The purpose of the study was to find out the effect of circuit training, resistance training and combined training on Physical, Physiological and Performance variables among football players and Physical variables such as speed, endurance, agility and flexibility, Physiological variables such as Vo2 max and resting heart rate and Performance variables such as dribbling, shooting, passing and playing performances were dependent variables and a. circuit training b. resistance training c. combined training were taken as independent variables.

To facilitate this study 60 sixty football players were taken randomly as a subjects from Tirupathi Colleges in Andhra Pradesh. They were divided into four equal groups. Which were as follows.

- a. Experimental Group - I Circuit Training
- b. Experimental Group - II Resistance Training
- c. Experimental Group - III Combined training (Circuit Training and Resistance Training).
- d. Group - IV (Control group - Restricted from the training).

The significance of the difference between the Experimental Groups I, II, III and Group - IV were found out by the pre test and post test. They were determined through analysis of covariance (ANCOVA). The adjusted post test means were also computed by scheff's post hoc test. Thus the following results were obtained after the statistical analysis.

5.2. CONCLUSIONS

Within the limitation and delimitations set for the present study and considering the results obtained, the following conclusion were drawn.

For the purpose of this study it was hypothesized that the Circuit Training (Experimental Group - I) Resistance Training (Experimental Group - II) Combined Training group (Circuit Training and Resistance training - Experimental Group - III) was improved the selected Physical, Physiological and Performance variables when compared to control group (Group - IV).

1. The Physical Variable Speed was significantly got improvement due to Twelve weeks of Circuit Training (Experimental Group - I) & Resistance Training (Experimental Group - II) & Combined Training (Circuit Training and Resistance training) (Experimental Group III) among football players comparing to the control group. The combined training group showed a better improvement than circuit and resistance training groups.
2. The Physical Variable Endurance was significantly got improvement due to Twelve weeks of Circuit Training (Experimental Group - I) & Resistance Training (Experimental Group - II) & Combined Training (Circuit Training and Resistance training) (Experimental Group III) among football players comparing to the control group. The combined training group showed a better improvement than circuit and resistance training groups.
3. The Physical Variable Agility was significantly got improvement due to Twelve weeks of Circuit Training (Experimental Group - I) & Resistance Training (Experimental Group - II) & Combined Training (Circuit Training and Resistance training) (Experimental Group III) among football players comparing to the control group. The combined training group showed a better improvement than circuit and resistance training groups.

4. The Physical Variable Strength was significantly got improvement due to Twelve weeks of Circuit Training (Experimental Group - I) & Resistance Training (Experimental Group - II) & Combined Training (Circuit Training and Resistance training) (Experimental Group III) among football players comparing to the control group. The combined training group showed a better improvement than circuit and resistance training groups.
5. The Physical Variable Flexibility was significantly got improvement due to Twelve weeks of Circuit Training (Experimental Group - I) & Resistance Training (Experimental Group - II) & Combined Training (Circuit Training and Resistance training) (Experimental Group III) among football players comparing to the control group. The combined training group showed a better improvement than circuit and resistance training groups.
6. The Physiological Variable Vo2 Max was significantly got improvement due to Twelve weeks of Circuit Training (Experimental Group - I) & Resistance Training (Experimental Group - II) & Combined Training (Circuit Training and Resistance training) (Experimental Group III) among football players comparing to the control group The combined training group showed a better improvement than circuit and resistance training groups.
7. The Physiological Variable Resting Heart Rate was significantly got improvement due to Twelve weeks of Circuit Training (Experimental Group - I) & Resistance Training (Experimental Group - II) & Combined Training (Circuit Training and Resistance training) (Experimental Group III) among football players comparing to the control group. The combined training group showed a better improvement than circuit and resistance training groups.

8. The Performance Variable Dribbling was significantly got improvement due to Twelve weeks of Circuit Training (Experimental Group - I) & Resistance Training (Experimental Group - II) & Combined Training (Circuit Training and Resistance training) (Experimental Group III) among football players comparing to the control group. The combined training group showed a better improvement than circuit and resistance training groups.
9. The Performance Variable Shooting was significantly got improvement due to Twelve weeks of Circuit Training (Experimental Group - I) & Resistance Training (Experimental Group - II) & Combined Training (Circuit Training and Resistance training) (Experimental Group III) among football players comparing to the control group. The combined training group showed a better improvement than circuit and resistance training groups.
10. The Performance Variable Passing was significantly got improvement due to Twelve weeks of Circuit Training (Experimental Group - I) & Resistance Training (Experimental Group - II) & Combined Training (Circuit Training and Resistance training) (Experimental Group III) among football players comparing to the control group. The combined training group showed a better improvement than circuit and resistance training groups.
11. The playing Performance was significantly got improvement due to Twelve weeks of Circuit Training (Experimental Group - I) & Resistance Training (Experimental Group - II) & Combined Training (Circuit Training and Resistance training) (Experimental Group III) among football players comparing to the control group and the combined training group showed a better improvement than circuit and resistance training groups.

12. The post hoc analysis of the results proved that Circuit Training (Experimental Group - I) was slightly showed the effect than Resistance Training in Speed, Endurance, Agility, Flexibility, Vo2 Max and Playing performance.
13. The post hoc analysis of the results proved that Resistance Training was slightly showed effect than Circuit Training differences in Strength, Resting Heart Rate, Dribbling, Shooting and Passing.
14. Finally the circuit and resistance training groups had less effect. The results proved that the Combined Training was showed better effect than Circuit Training and Resistance Training in Speed, Endurance, Agility, Strength, Flexibility, Vo2 Max, Resting Heart Rate, Dribbling, Shooting, Passing and Playing performance.

5.3. RECOMMENTATIONS FOR THE --FUTURE PRACTITIONERS

The following recommendations have been derived on the basis of the study for practitioners.

1. It was found that Circuit and Resistance Training should be useful for the Football Players.
2. It was found that the combination of both Circuit and Resistance Training are more suitable for the Football Players.
3. Circuit and Resistance Training may be recommended for male and female football players for all other performances for better treatment.
4. Circuit and Resistance Training may be recommended for the improvement of the football players and other sports also.
5. The government may be encourage Circuit and Resistance Training as a part college and university programmes.

5.4 RECOMMENDATIONS FOR THE GOVERNMENT

1. Circuit & Resistance training may be introduced in curriculum of the schools and colleges.
2. Circuit & Resistance training may be introduced for the all players (both track and field and games)
3. Further, it is recommended that Circuit and Resistance Training or the combinations of both practices are beneficial for the intercollegiate football players.
4. The government may introduce the awareness programme on Circuit & Resistance training for the better health of the people.
5. Similar study may be conducted for various age groups.
6. Similar study may be conducted for the extension period of experimentation.
7. The present study is mainly focused on Football Players. The same study may be done on other game also.
8. Similar study may be conducted for the same age group to compare other dependent variables.
9. The Circuit and Resistance Training can be compared to other types of ailments to find the effectiveness on dependent variables.
10. Similar study may be undertaken by selecting a large sample.
11. The present study needed to be strengthened or support by more relevant research studies.

5.5 SUGGESTION FOR FURTHER RESEARCH

1. Similar study can be undertaken on other age groups of Circuit and Resistance Training.
2. Similar study can be undertaken for other game also.
3. Similar study can be undertaken for hockey, football, cricket and etc also.
4. Similar study can be undertaken for rural and urban players also.
5. A similar study with larger samples may be undertaken to support the findings of this study.
6. A study with different levels of football players (national, state, university, intercollegiate) would throw more light on the findings of this study.