CHAPTER V
SUMMARY CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

Human beings have always strived to run faster, jump higher, throw beyond and exhibit greater endurance and skill. We are naturally competitive and ambitious for good athletic and sports performance. As a result of practical knowledge, scrutiny and scientific experimentation old methods of conditioning, though foliating and rich in tradition have been discarded and replaced by new methods. Scientific researchers have been produced valuable and precise information about effect of different types of scientific training methods. As a result we know more than ever before about the functioning of the human body system while training as well as sports competition and how to develop the motor qualities like endurance, agility, speed and athletic skills. Though the analysis for reviews of related literature is available about the various types of sports training methods and their relevant effect, it is found that considerable attempt has been made on “effect of plyometric and core training on selected physical, physiological and skill related performance variables among men football players” hence the present study was undertaken by the investigator.

The reason for this study is to find out the “effect of plyometric and core training on selected physical, physiological and skill related performance variables among men football players”.

Since this study involved physical variables strength endurance, explosive power, flexibility, physiological variables such as respiratory rate, resting heart rate, body mass index and skill related performance variables dribbling, passing and shooting, the subjects were restricted to a minimum number of 36 college level men football players from Pondicherry University were selected as subjects (who had participated district /inter collegiate level football tournament) for this study. The subject’s age ranged from 18 – 28 years as per their college/university records. The subjects chosen for the study were divided according to their age into three equal groups and designated as two
experimental groups and one control group each consisted of twelve men football players. As the subjects were separated in to three groups, group 1 underwent the training of plyometric, group 2 underwent core training group 3 without training. The data were collected from the three groups on physical, physiological and skill related performance variables before and after the completion of training programme and the collected data were statistically examined to find out whether there are any significant differences among and between the groups by using Analysis of Co-Variance to the help of (SPSS) statistical package16 version were used for this analysis. The significance was fixed at 0.05 level of confidence. The following results were obtained after the statistical testing analysis of co-variance.

**PHYSICAL VARIABLES**

**STRENGTH ENDURANCE**

For this study the results delivered that there was a positive improvement of physical variable of **Strength endurance** for the reason influence of plyometric training and core training programme for college level men football players but when compare to the plyometric training group the core training group showed the best performance in the physical variable of **Strength endurance** it is delivered that core training may be effective training for improving the **Strength endurance** for any sports and games especially the football players.

**EXPLOSIVE POWER**

For this study the results revealed that there was a significant improvement of physical variable of **Explosive power** between pre test and post test but there is a significant improvement on adjusted post mean test due to the influence of plyometric training and core training programme for college level men football players based on the post test and adjusted post test mean values among the plyometric training, core training and control group the plyometric training group showed the better performance in the physical variable of **Explosive power** hence it may be treated that to improve the jumping ability we may consider the plyometric training programme for any sports and games.
FLEXIBILITY

For this study the results concluded that there was a positive improvement of physical variable of **Flexibility** due to the influence of plyometric and core training programme for college level men football players. But when compare to the plyometric training group the core training group showed the best performance in the physical variable of **Flexibility**. Hence it is revealed that core training may be effective for improving the **Flexibility** for any sports and games participants.

PHYSIOLOGICAL VARIABLES

RESTING HEART RATE

For this study the results delivered that there was a significant development of physiological variable of **Resting heart rate** reduced. The performance has been increased due to the influence of plyometric training and core training programme for college level men football players. But when compare to the core training group the plyometric training group exposed the better performance in the physiological variable of **Resting heart rate** it is revealed that plyometric training may be effective training for reducing respiratory rate and improving the **Resting heart rate** for all sports and games competitors.

RESPIRATORY RATE

For this study the results revealed that there was a positive improvement of physiological variable of **respiratory rate**. The performance has been increased because the influence of plyometric training and core training programme for college level men football players. But when compare to the core training group the plyometric training group exposed the better performance in the physiological variable of **Respiratory rate** it is revealed that plyometric training may be efficient for reducing respiratory rate and improving the **Respiratory capacity** for any sports and games competitors.
BODY MASS INDEX

For this study the results revealed that there was no significant development of physiological variable of Body mass index among plyometric training, core training and control group in before test and after test but there is a significant improvement on adjusted post mean test due to the selected experimental plyometric training and core training programme for college level men football players. For this variable the plyometric training group exposed better performance in the physiological variable of body mass index hence the plyometric training may be useful to reduce the Body mass index level.

SKILL RELATED VARIABLES

DRIBBLING

For this study the results revealed that there was a significant improvement of skill related variable of Dribbling means the dribbling time had been reduced due to the influence of plyometric and core training programme for college level men football players. It is showed that the skill related performance Dribbling time reduced the performance has been increased. The plyometric training football players exposed the best performance in the skill related performance variable of Dribbling it is revealed that plyometric training may effective training for improving the Dribbling capable among football players.

PASSING

For this study the results revealed that there was no positive development of skill related variable of Passing due to the selected experimental plyometric training and core training programme for college level men football players. It is showed that the skill related performance Passing capacity has not been increased it may be the reason of this particular plyometric training and core training may not enough to influence that the experimental groups for the variable of Passing.
SHOOTING

For this study the results revealed that there was a positive improvement of skill related performance variable of Shooting performance due to the selected experimental plyometric training and core training programme for college level men football players. It is showing that there is a positive improvement of performance variables of shooting accuracy. The core training group exposed better performance in the skill related performance of Shooting it is revealed that core training may effective for improving the Shooting performance among football players.

RECOMMENDATIONS

1. Since core training helps to improve, the motor ability components such as muscular endurance and flexibility variables, it may be made compulsory for all school /college students who are all participating in sports and games.
2. Similar study can be conducted on some other physical, physiological and skill related variables.
3. Similar study may be undertaken among female football players with different age categories.
4. Similar study can be conducted on different demography like coastal area, high altitude.
5. Similar study can be conducted for different categories male and female college level, state level and national level football players.
6. Similar training to improve explosive power, resting heart rate, respiratory rate and skill related performance may be given to various games and sports.