Chapter V

SUMMARY CONCLUSIONS AND RECOMMENDATIONS

Summary

The kabaddi coaches face several problems while preparing their team for university competition. Among which the duration of preparing their team for university competition is very small and is a common problem faced by coaches. In order to prepare their team to their expected standard they opt for combined training which simultaneously improve strength and power or strength and endurance etc. Therefore, the purpose of this study is to examine the combined effect of strength and plyometric training on body composition and physical fitness variables of male kabaddi players.

To accomplish the purpose of the study, forty eight (48) male intercollegiate kabaddi players were selected from affiliated colleges of Acharya Nargarjuna University. These players were classified into two groups namely combined strength and plyometric training group (24) and control group (24). These players aged 24.26 ± 4.58 years, weight 73 ± 6.50 kg and height 173.25 ± 6.85 cm. represented their college in intercollegiate kabaddi and have more than six years of playing experience. The
investigator referred to various relevant literatures, consulted with experienced experts in sports to identify appropriate variables. In addition to this, by using the investigator’s personal knowledge and professional experience, the following most experimental and criterion variables were selected in the present investigation.

The independent variable selected in the present study was combined strength and plyometric training which was administered three days a week for ten weeks. The experimental group underwent combined strength and plyometric training and control group remained passive. The dependent variables selected in this study are body composition (percent body fat, lean body mass, fat mass) and physical fitness variables (speed, agility, explosive power, maximum muscular strength of upper body, maximum muscular strength of lower body, endurance, flexibility, muscular endurance of abdominal muscle). The tests and equipment used to assess the selected body composition and physical fitness variables are skinfold caliper, weighing machine, 50 yard dash, T-test, vertical jump test, 1RM bench press, 1RM Squat, Copper’s 12 minute run and walk, sit and reach and sit ups.
For the present study pre test – post test randomized group design (Thomas, Nelson & Silverman 2005) which consists of a control group and an experimental group that was used to find out effect of combined strength and plyometric training on body composition and physical fitness variables. Equal numbers (24) of subjects were assigned randomly to both the groups. The combined strength and plyometric training group was exposed to ten (10) weeks training for three days per week (i.e. Monday, Wednesday, and Friday).

All the subjects were tested on body composition and physical fitness variables prior to training and after ten weeks of training. The testing session consists of warm-up and test interspersed with rest. All tests were explained and demonstrated. Before testing, subjects were given practice trials to become familiar with the testing procedures. All tests were counterbalanced pre and post testing to ensure that testing effects were minimized. Subjects performed each test as per test procedure and the scores of best trials were taken for this study. In the morning on the day of testing measurements like height, weight, body composition, speed, explosive power, agility, flexibility and muscular endurance of abdominal muscle were assessed. However, in the evening maximum muscular strength
of upper and lower body and endurance was evaluated. The collected data was evaluated using the analysis of covariance (ANCOVA). SPSS statistical software package (SPSS Company, America, version 17.0) was used. The α value of 0.05 was set for statistical significance.

Conclusions

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

1. The combined training program consists of a combination of both strength and plyometric training programs in which two sessions a week of plyometric and one strength training sessions in even weeks and one plyometric and two strength training sessions in odd weeks are effective enough to produce statistically significant changes in percent body fat, lean body mass, fat mass, speed, explosive power, maximum muscular strength of upper and lower body as compared to control group.

2. Furthermore, it is found that combined strength and plyometric training is in effective in enhancing agility, endurance, flexibility and abdominal endurance.
Recommendations

Based on the results of the study the following recommendations have been made.

1. Combined strength and plyometric training can be implemented for the purpose of enhancing the body composition and physical fitness capability of kabaddi players. Yet, the effect of strength and plyometric training is not separately assessed.

2. The findings of the study clarify that combined strength and plyometric training may not be utilized for the purpose of developing aerobic capacity of the players, instead some other training modalities of aerobic nature may be suggested.

3. The findings of the study would be helpful for the coaches to systematically frame the training schedule to improve the specific physical fitness variables.

4. The study may be extended to examine the effects of combined strength and plyometric training on selected kinetics, kinematics, hematological, biochemical and other physiological and motor performance parameters.

5. Similar studies may be conducted for analyzing the influence of combined strength and plyometric training of different intensities for longer duration of training and its tapering or
cessation impacts on various fitness variables among players of different ages, gender, levels of fitness, and nature of game.

6. Combined strength and plyometric training can be implemented for the purpose of enhancing the body composition and physical fitness capability of kabaddi players, though, training can be administered to women kabaddi players.