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SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

Football is a game which is aerobic cum anaerobic in nature. Hence to achieve peak performance in this game, it is worthwhile to have the mode of training also in this nature. Fundamentally the players are treated with varied training modules individually to develop the basic fitness and performance-related components. It helps the players to have the basic fitness needed for the survival of the game. But when the players aim at high level performance in football, the mode of training should be commensurate with the nature of the training. Only then a player can have the abilities to perform well in the fundamental skills and advance skills in football. Having this concept, when striving for the means and methods to achieve this, it was observed that the combination of varied training module with varied nature of intensity, load, frequency and duration may be a viable source to achieve this. Further it was observed from the earlier studies that periodization can result in greater changes in strength motor performance and body composition than the non periodized training program (Fleck, 1999). Periodization of training is an important concept in designing the training program. Periodization based training program varied at regular intervals is an attempt to bring out optimal gains in fitness and components related to performance. Such a salient aspect of periodization was implicated in the present study to test the effect of strength and power-related training such as resistance training and plyometric training when combining with resistance cum plyometric. Besides to have the sprinting performance, a training
module was designed to find out how far the resistance based activities would have benefited when practising with speed based resistance cum plyometric training. Finally the aim of testing the worth of the combined effects that underlay the nature of the game; the investigator intended to implicate the periodized training program with varied training modules of resistance training, speed training, plyometric training and combination of training modules to bring out the needed factors that were essential for peak performance in football. For this, the investigator designed the present study titled “Effects of Periodized, Speed-Based and Combination of Periodized and Speed-based Resistance cum Plyometric Training on Performance-Related Components, Skill Performance Variables and Overall playing ability of Football Players”.

The methodology used in the present study is described below:

To achieve the purpose of the study, one hundred and forty four the football players from the team qualified for the quarter finals in the inter-collegiate tournaments totally one hundred and forty four were selected as samples. In order to obtain quality in selection of samples, overall playing ability was chosen as a criterion. Thus the overall playing ability of the selected samples was assessed by a team of experts consisting of three including the investigator using a ten-point scale. Of the one hundred and forty four football players exclusion of players scored lowered and upper quarter, ninety four players were selected. Of them eighty were selected randomly. The selected subjects were divided into four groups equally, which Group I underwent Periodized Resistance cum Plyometric Training; Group II underwent Speed-based Resistance cum Plyometric Training; Group III underwent Combination
of Periodized Resistance and Speed-based Resistance cum Plyometric Training and Group IV was the control group. All the three experimental groups were treated with respective training for one and half hour per day for three days a week for a period of twelve weeks. The subjects’ performance-related variables (speed, arm strength, leg strength, arm explosive power, leg explosive power, cardio respiratory endurance) and skill performance variables (kicking, dribbling, shooting, and overall playing ability) were tested before the training was administered (pre-test), and at the completion of the training (twelve week-post-test). The readings on variables were recorded carefully in their respective units. The collected data were treated with both univariate and multivariate statistical analysis to test the objectives of the present study.

5.2 FINDINGS

The findings of the present study are as follows.

1. In testing the individualized effect of each training module namely Periodized Resistance cum Plyometric Training, Speed-based Resistance cum Plyometric Training and Combination Periodized Resistance and Speed-based Resistance cum Plyometric Training on variables (Speed, Arm Strength, Leg Strength Arm Explosive Power, Leg Explosive Power, Cardio Respiratory Endurance, Kicking, Dribbling, Shooting, and Overall playing ability) the observed results confirm that the effect of training of each one is positively significant. Besides in testing the individualized effect of control group, its effect was not significant.
2. The mean difference observed on the performance of variables among the Periodized Resistance cum Plyometric Training, Speed-based Resistance cum Plyometric Training and Combination Periodized Resistance and Speed-based Resistance cum Plyometric Training and Control group before the treatment is statistically not significant.

3. The mean difference observed on the performance of variables after completion of training period among the four groups namely Periodized Resistance cum Plyometric Training, Speed-based Resistance cum Plyometric Training and Combination Periodized Resistance and Speed-based Resistance cum Plyometric Training and Control group was statistically significant.

4. The mean difference observed on adjusted means of variables among the four groups was statistically significant.

5. The performance of Combination of Periodized and Speed-based Resistance Training cum Plyometric Training is superior to Speed-based Resistance cum Plyometric Training and traditional training on variables used in the study.

6. The performance of Combination of Periodized and Speed Based Resistance Training cum Plyometric Training compared to Periodized Resistance cum Plyometric Training, significant improvement appeared in the selected variables other than the variables of arm explosive power and leg strength.
7. Periodized Resistance cum Plyometric Training and Speed-base Resistance Training cum Plyometric Training are advanced appreciably on variables as compared to control group.

8. Periodized Resistance Training cum Plyometric Training is significantly better in the development of arm strength, leg strength and arm explosive power than the speed-based resistance cum plyometric training whereas in the case of remaining variables both are found as similar.

5.3 CONCLUSIONS

From the results of the present study, the following conclusions have been made.

1. Combination of Periodized Resistance and Speed-based Resistance cum Plyometric Training was found as highly effective in developing the performance-related components (speed, arm strength, leg strength, arm explosive power, leg explosive power, cardio respiratory endurance), skill performance variables (kicking, dribbling, shooting) and overall playing ability as compared to other treatment groups of Periodized Resistance cum Plyometric Training, Speed- based Resistance cum Plyometric Training. The source for such a magnificent effect in favor to the Combination of Periodized Resistance and Speed-based Resistance cum Plyometric Training can be accounted into the assimilation of the principle of the Periodization, Speed-based Resistance and explosive nature of training.
2. Periodized Resistance cum Plyometric Training has significant effect in arm strength, leg strength and arm explosive power whereas in the case of speed, leg explosive power, cardio respiratory endurance, kicking, dribbling, shooting and overall playing ability, though the performance was not reaching the significant level, considerable margin was observed over to the Speed- based Resistance cum Plyometric Training. By this it was concluded that implicating the characteristics of Periodization into the training underlying the strength and power in the case of Periodized resistance cum Plyometric Training might have been the root cause of its dominance to the Speed- based Resistance cum Plyometric Training.

3. The results derived on individualized effect of Speed-based Resistance cum Plyometric Training leads to conclude that insisting the speed while doing the resistance exercises and plyometric exercises with the moderate intensity is an effective source in developing the performance- related components as such required for executing the skill performance variables of kicking, dribbling and shooting. Resulting of this may help to develop the overall playing ability.

4. In general, plyometric training is exclusively responsible for developing the explosive power-related components. But from the results of the present study, it was concluded that the development of explosive power and strength related components will be high when plyometric training adding with resistance training.
5. In the present study the duration of training for a day was one and half hour for all training groups whereas in the case of control group though, they were also engaged their own training during the course of treatment, the duration of practice for a day was not a fixed one. Based on this it was concluded that the duration of practice for a day for the training group may be a source for their dominance on skill performance variables as compared to players of control group.

5.4 RECOMMENDATIONS

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

1. In the present study the effect of combination training is explained positively on performance-related components and skill variables of football players, the physical education teachers, trainers and coaches can prefer this type of training so as to achieve their aim in time.

2. In the present study, the combination training is underlying the nature of the game and since explained the better results on the components that are determining the skills and playing ability; it is to recommend that keeping the nature of the game to which the combination of training is to be designed.

3. It is to recommend that the session to application of combination of training to develop the components related to performance would be in between the preparatory and competitive session.
4. In selecting the physical exercises while designing the training program, it is to recommend that the form of exercises should have the structure of the skills instead of a static one.

5. In the variables related to arm strength and explosive power, both Periodized Resistance cum Plyometric Training and Combination Training are showing similar results on strength and power related variables. Hence it is recommended that Periodized Resistance cum Plyometric Training also can be used as an effective training module to develop the performance related components.

6. To have the better adaptations psychologically and overcome the monotonous during the course it is to suggest that the application of combination training to players is significant one.

5.5 FUTURE WORK

In completion of the present study, the investigator felt that in the following aspects the future work can be carried out since learning is an endless process.

1. In the present study periodized method was applied only to the resistance training. So in future the same study can be conducted by extending the periodized method to plyometric training.

2. The present study was confined to test the individual effects and comparative effects of four models on variables used in the study. Hence in future, the same study can be conducted to test the progress over the period of training using repeated measures.