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IMPACT OF SUPERIOR PACE TRAINING ON PHYSICAL FITNESS PARAMETERS AMONG SCHOOL LEVEL MALE FOOTBALLERS

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Abstract

This study was designed to investigate the impact of superior pace training on physical fitness parameters among school level male footballers. To achieve the purpose of the study 40 school level male football players were selected from C.S.I higher secondary school ketti and N.S.IYAH Memorial Higher secondary school ketti palada, The Nilgiris. The subjects was randomly assigned to two equal groups (n=20). Group- I underwent superior pace training and group - II was acted as control group (CG). The superior pace training was given to the experimental group for 3 days per week (Monday, Wednesday and Friday) for the period of eight weeks. The control group was not given any sort of training except their routine work. A pilot study was conducted to assess the initial capacity of the subjects in order to fix the load. The physical fitness components of speed (50 yards dash) and Muscular strength endurance (Sit ups) were measured before and after training period. The data collected from the subjects was statistically analyzed with't' test to find out significant improvement if any at 0.05 level of confidence. The result of the speed and Muscular strength endurance speculated significant improvement due to influence of superior pace training with the limitations of (diet, climate, life style) status and previous training.

Keywords:- Superior pace training, Speed, Muscular Strength Endurance.

Introduction

Soccer superior pace schedule should be to increase sprinting power - particularly acceleration and speed off the mark. Soccer players rarely sprint more than 50 yards in a straight line. A second, and equally important, goal is to increase speed endurance. This mention in another anaerobic endurance. Speed endurance training significantly improves recovery after a bout of repetitive sprints. Body's ability to remove lactic acid increases which can make such a difference to soccer game. Thirdly, a soccer superior pace program should improve agility, foot speed and reaction time. superior pace training to improve speed, muscular strength and endurance don't tend to be physically taxing. The emphasis is on short, sharp movements of a high quality. Finally, incorporating a ball into some of the speed and agility drills is important to make all those gains in speed transferable to the field of play (Oakley, 2001).

Methodology

In order to address the hypothesis presented herein, we selected 40 male football players from CSI higher secondary school Ketti and N.S.IYAH Memorial Higher secondary school ketti palada, The Nilgiris and their age ranged between 14 and 18 years. The subjects were randomly assigned into two equal groups, namely experimental group (20) and control group (20) each. The respective training was

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given to the experimental group for 3 days per week (alternate days) for the period of eight weeks. The control group was not given any sort of training except their routine. To measure speed- 50yard Dash test and unit of measure was in seconds, and - to measure Muscular strength endurance - Sit ups test and unit of measure was in counts. The physical fitness parameters were measured before and after 8 weeks of superior pace training were examined. The training programme was lasted for 45 minutes for session in a day, 3 days in a week for a period of 8 weeks duration. These 45 minutes included 5 minutes warm up, 15 minutes regular physical exercises, training for 20 minutes and 5 minutes warm down. Every two weeks of training 5% of intensity of load was increased from 55% to 70% of work load. The volume of training is prescribed based on the number of sets and repetitions. The equivalent in regular physical exercise and training is the length of the time each action is held for and the number action in total 3 day per weeks (Monday, Wednesday and Friday). The selected subjects underwent regular physical exercise on other 3 days (Tuesday, Thursday, and Saturday). The collected data on above said variables due to the impact of superior pace training was statistically analyzed with 't' test to find out the significant Improvement between pre and post test. In all cases the criterion for statistical significance was set at 0.05 level of significance. ($P < 0.05$)

Findings

TABLE – I
COMPARISON OF PRE AND POST TEST SCORES ON SPEED AND MUSCULAR STRENGTH ENDURANCE OF EXPERIMENTAL GROUP

Variables	Group	Mean	SD	't' ratio
Speed	Pre – test	7.12	0.03	5.35*
	Post – test	7.10	0.03	
Muscular strength endurance	Pre – test	25.25	0.05	4.06*
	Post – test	26.45	0.04	

* Significant at 0.05 level.

Table I reveals that the computation of 't'ratio between mean of pre and post on speed and muscular strength endurance, among superior pace training group of school level male footballers. The mean values of the speed was 7.12, 7.10, 25.25 and 26.45 respectively, The obtained 't' ratio of speed and muscular strength endurance was 5.35* and 4.06* respectively. Since the obtained 't' value is greater than the required table value of 2.09 at 0.05 level of significance is significant.

TABLE – II
CALCULATION OF 't' RATIO BETWEEN THE PRE AND POST TEST SCORES ON SPEED AND MUSCULAR STRENGTH ENDURANCE OF CONTROL GROUP

Variables	Group	Mean	SD	't' ratio
Speed	Pre – test	7.08	0.05	0.43
	Post – test	7.09	0.04	
Muscular strength endurance	Pre – test	25.25	1.06	1.71
	Post – test	25.05	1.19	

* Significant at 0.05 level.

Table II reveals that the computation of 't'ratio between mean of pre and post on speed and muscular strength endurance, among superior pace training group of school level male footballers. The mean values of the speed was 7.08, 7.09, 25.25 and 25.05 respectively, The

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obtained 't' ratio of speed and muscular strength endurance was 0.43 and 1.71 respectively. Since the obtained 't' value was lesser than the required table value of 2.09 at 0.05 level of significance it was statistically insignificant.

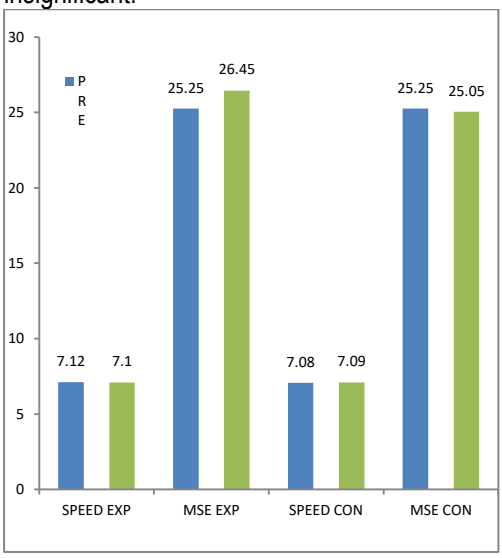

FIGURE- I: BAR DIAGRAM SHOWING THE MEAN VALUE PHYSICAL FITNESS PARAMETERS OF SCHOOL LEVEL FOOTBALLERS ON EXPERIMENTAL AND CONTROL GROUP

Discussion and findings

The present study experimented the impact of superior pace training on physical fitness parameters among school level male footballers. The results of this study indicated that superior pace training is more efficient to bring out desirable changes over the speed and muscular strength endurance of school level male footballers. The finding of the present study had similarity with the findings of the investigators referred in this study. Mathisen et al., (2014) the training sessions with short superior pace bouts at maximum effort, interspersed with adequate recovery time, results in improvements in both in linear superior pace(acceleration) and in agility performance in adolescent female soccer players. Shaher.A et al., (2012) indicate significant improvement within the training group from pre- to post-test in 10x40 m repeated superior pace time (-0.29 s), 40m superior pace time (-0.33 s), 0–20 m superior pace time (-0.19 s), 20–40 m superior pace time (-0.15 s) and CMJ (1.3 cm). The control group results showed notable improvements in 0–40 m superior pace time (-0.11 s), 10x40 m repeated superior pace time (-0.09 s) and 0–20 m superior pace time (-0.10 s). A comparison between groups indicates that there were marked differences between the two groups in 40 m superior pace time (-0.22 s), 10x40 m repeated superior pace time (-0.20 s) and 20–40 m superior pace time (-0.15 s). We concluded that repeated superior pace ability is trainable and the larger improvement within the training group as compared to the control group could be explained by the extra weekly repeated superior pace training. Wise Blessed Singh.Y (2014). revealed significant improvement on selected speed parameters whereas significant decrease during the detraining period. Bonnette et al., (2011) indicate that a two-day a week sprint, plyometric and agility training program over four weeks can have positive results on the speed, endurance and power of high school soccer players. High school soccer coaches and trainers should consider implementing an agility, plyometric and superior pace training program for the development of speed, endurance and power in their athletes, even if they have a limited amount of time for training outside of soccer practice.

Conclusion

It was concluded that individualized effect of superior pace training group showed a statistically significant positive sign over the course of the treatment period on selected

physical fitness components and physiological parameters such as speed, muscular strength and endurance, Vo2 max, mean arterial blood pressure of inter collegiate football players as compared to their performance with either control group.

Based on the result of the study it was concluded that the 8 weeks of superior pace training have been significantly improved speed, muscular strength endurance among school level men footballers. From the findings it is postulated that superior pace training is suitable mode to bring out desirable changes over speed, muscular strength endurance among school level men footballers

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