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Effect of sprint training on selected physical fitness variables of women football players

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Abstract

This study was investigated the impact of sprint training on selected physical fitness variables of women football players. To achieve the purpose of the study 40 women football players were selected from Navarasam College Coimbatore district. The subjects was randomly assigned to two equal groups (n=20). Group- I underwent sprint training (TBS) and group - II was acted as control group (CTG). The sprint training was given to the experimental group for 3 days per week (Monday, Wednesday and Friday) for the period of eight weeks. The selected physical fitness variables of acceleration speed (30m acceleration sprint test) before and after training period. The data collected from the subjects was statistically analysed with 't' test to find out significant improvement if any at 0.05 level of confidence. The result of the present sprint training significantly improved acceleration speed of women football players.

Keywords: Sprint training, acceleration speed and women football players

Introduction

Football is one of the most popular games in India and is played with much enthusiasm and vigor. The fact that some of the world's oldest football tournaments are played in India underlines the rich legacy of the game, in the country. Over the years, these tournaments played throughout the year, have been playing host to the skills of India's aspiring footballers and also been a treat to the eyes of the spectators. Talking about the football tournaments held in India, IFA Shield, Durand Cup, Federation Cup, Santos Trophy, Subtotal Cup and Nehru Cup International Football Tournament are some of the major club competitions. One of the oldest football tournaments, the IFA Shield was dominated by the British football players, until Mohun Bagan recorded a victory in the year 1911. In the Durand Cup, which was initiated in the year 1888, MohunBagan and East Bengal have recorded the highest number of wins in the tournament. The Federation Cup was started on 1977 and has been the second most honorable club level football tournament. The only tournament that includes foreign teams to play is the Nehru Cup International Football Tournament. Apart from the above mentioned tournaments, there are inter-state and interschool contests that occur in the district and state levels. In this section, we deal with some of the most prestigious football tournaments in India.

Sprint training

Training for running can be defined as a systematic planned programmed of physical preparation for the sole purpose of improving performance. Intuitively, the perfect training regimen for the enhancement of running performance should incorporate most of the training techniques currently practiced by top runners. Such logic, however, ignores the principle of individuality and the genetic component of performance those runners who are capable of exceptional performance are not only genetically well endowed, but can also optimize these traits through appropriate training.

Methodology

The purpose of this study was to find out the effect of sprint training on speed parameters for women football players. To achieve the purpose of the study, 40 women football players were randomly selected from the Navarasam College, Coimbatore.

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Their age ranged from 18 to 25 years. They were divided into two equal groups consist of 20 each named control group and experimental group. The investigator did not made any attempt to equate the groups. The control group was not given any treatment and the experimental group was given sprint training for three days a week. The experimental group was

given training for the period of eight weeks of sprint training.

Criterion Measures

S. No	Variables	Test items	Unit of measurements
1.	Acceleration speed	30 m acceleration sprint test	In Seconds

Table 1: Computation of ‘t’ ratio on selected parameters on experimental group and control group (Scores in numbers)

Group	Variables	Mean	N	Std. Deviation Pre	Std. Deviation Post	T ratio
Acceleration Speed	Experimental Group	Pre test	3.54	0.29	0.34	7.22*
		Post test	3.33			
	Control Group	Pre test	3.57	0.36	0.51	
		Post test	3.62			

*significant level 0.05 level degree of freedom (2.09 ,1 and 19)

Table 1 reveals the computation of mean, standard deviation and ‘t’ ratio on selected acceleration speed of experimental group. The obtained ‘t’ ratio on acceleration speed were 7.22 and respectively. The required table value was 2.09for the degrees of freedom 1and 19 at the 0.05 level of significance. Since the obtained ‘t’ values were greater than the table value it was found to be statistically significant.

Further the computation of mean, standard deviation and ‘t’ ratio on acceleration speed and control group. The obtained ‘t’ ratio on acceleration speed were 0.67 respectively. The required table value was 2.09 for the degrees of freedom 1and 19 at the 0.05 level of significance. Since the obtained ‘t’ values were lesser than the table value it was found to be statistically not significant.

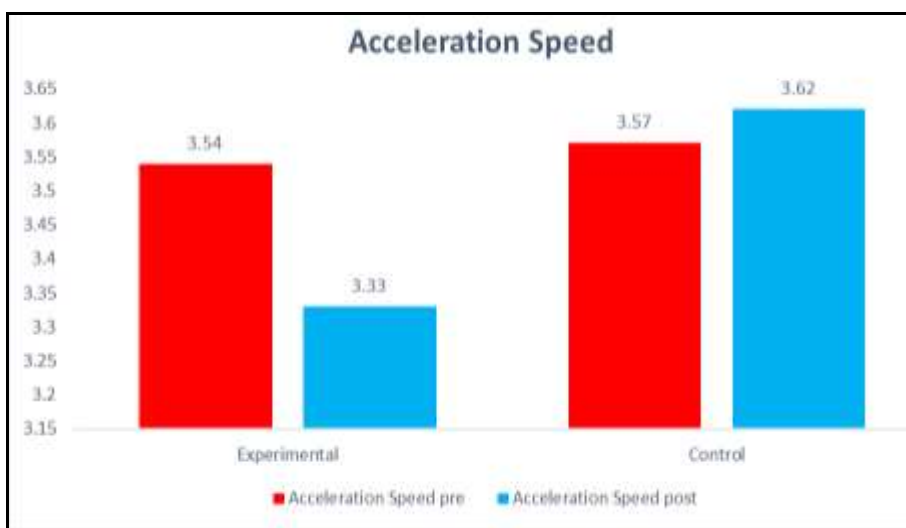


Fig 1: Bar diagram shows the mean values of pre and post test on acceleration speed of control and experimental group

Discussions of Finding

The present study experimented the effect of sprint training on selected speed parameters on acceleration speed of women football players. The results of this study indicated that the sprint training improved the acceleration speed. The findings of the present study had similarity with the findings of the investigation referred in this study.

Ajayaghosh, M. V. (2017) ^[1] Sprint training evidenced more effective in increasing speed and speed endurance, the training method appears to endorse fitness. Based on the results of the study the investigator recommend that a similar research can be conducted for a different sport, age, and gender.

Kahraman *et al.*, (2023) ^[2] six-week plyometric exercises applied with sprint interval were effective in the development of some biomotor properties in U-16 male football players. In this context, it can be stated that plyometric exercises added to training plans can be used as an effective method in the development of performance parameters of athletes.

The results of the present study indicates that the sprint training programme is effective method to improve acceleration speed of women football players. The

discrepancy between the results and the results of previous studies might be attributed to several reasons, such as the training experience level of the subjects, the training programme, the intensity used and the duration of the training programme.

Conclusions

Based on the results, the following conclusions have been arrived.

1. It was concluded that eight weeks of Tabata based sprint training programme produced significant improvement in acceleration speed of football defensive players.

References

1. Ajayaghosh MV. Upshot of sprint training on selected speed parameters among men football players. *Int J Yoga Physiother Phys Educ.* 2017;2(6):33-36.
2. Aslan TV, Kahraman MZ. The effect of six-week plyometric exercises with tabata protocol on some biomotor properties in U-16 male footballers. *Rev Gest Secr (Manag Adm Prof Rev).* 2023;14(10):18019-18037.
3. Abd ElHakim BEH. The effect of sprint exercises with a

- light stimulation on visual tracking, some physical and biological variables and the speed of skill performance of Taekwondo players. *Assiut J Sport Sci Arts*. 2021;2021(2):137-154.
4. Abd ElHakim BEH. The effect of speed with a light stimulation on visual tracking, some physical and biological variables and the speed of skill performance of Taekwondo players. *Assiut J Sport Sci Arts*. 2021;2021(2):137-154.
 5. Afyon YA, Mülazimoğlu O, Altun M. The effect of 6 weekly sprint training on some physical and motor characteristics on female volleyball players. *Eur J Phys Educ Sport Sci*; c2018.
 6. Somade OA, Nikam PP. Effect of Tabata Protocol on Exertion Level and Lower Limb Explosive Strength in Recreational Footballers: An Experimental Study. *Indian J Public Health Res Dev*. 2020;11(4).
 7. Guilherme FR, dos Santos SLC, Ferrer MRI. Capacity of repeated sprints in professional futsal athletes: an analysis of the tabata protocol. *RBBF-Rev Bras Futsal Futebol*. 2023;15(63):298-304.
 8. Dupont G, Akakpo K, Berthoin S. The effect of in-season, high-intensity interval training in soccer players. *J Strength Cond Res*. 2004;18(3):584-589.
 9. Brezze MR, Kumar MS. Effect of Cluster Training And sprint Training On Motor Fitness And Physiological Variables Among Kabaddi Players. *Korean J Physiol Pharmacol*. 2023;27(1):155-158.
 10. Munandar RA, Setijono H, Kusnanik NW. The Effect of Tabata Training and High Intensity Interval Training toward The Increasing of Strength, and Speed. *Int J Multicult Multirelig Understanding*. 2021;8(10):80-85.
 11. Sumpena A, Sidik DZ. The impact of tabata protocol to increase the anaerobic and aerobic capacity. In: *IOP Conference Series: Materials Science and Engineering*. 2017 Mar;180(1):012189. IOP Publishing.