



## Impact of speed based skill training after ankle weight resistance training on selected physical and skill performance of men footballers

K. Murugavel<sup>1</sup>, D. Nandagopal<sup>2</sup>, J. Nirendan<sup>2</sup>

<sup>1</sup> Professor and Head, Department of Physical Education Bharathiar University Coimbatore, Tamilnadu, India.

<sup>2</sup> PhD Research scholar, Department of Physical Education Bharathiar University Coimbatore, Tamilnadu, India

### Abstract

The study was designed to know about the importance of speed based skill training after ankle weight resistance training on selected physical and skill performance of men footballers. In order to achieve the study, 40 men footballers were selected from Bharathiar university department and affiliated colleges, of Bharathiar university coimbatore, their age ranged between 18 and 25 years. The selected population were divided into two equal groups consist of 20 each. The group I (n=20) was considered as experimental group and group II (n=20) was considered as control group. The investigators did not made any attempt to equate the group. The control group was not given any treatment and the experimental group was given speed based skill training after ankle weight resistance training for three days per week, for a period of twelve weeks. Explosive power was assessed by standing broad jump test and unit of measurement was in meters and kicking ability was assessed by warner soccer test and unit of measurement was in meters. The collected data on selected physical and skill performance variables was analyzed by using 't' test at 0.05 level of confidence. The result of the present study explored that the explosive power and kicking ability significantly improved due to the speed based skill training after ankle weight resistance training on selected physical and skill performance of men footballers.

**Keywords:** Speed based skill training, ankle weight resistance training, explosive power and kicking ability

### Introduction

Ankle weight are a convenient and cheap method of adding resistance to your leg and abdominal workout resistance training also know as strength or weight training is an external part any exercise region. Ankle weights are commonly used during a variety of exercises with the goal of enhancing the benefits of the workout. While there are certainly benefits to the use of these training aids, their advantages are limited to certain targeted areas. Some of the more common uses of ankle weights may actually hurt rather than help. Ankle weights do make the large muscles of the lower body, such as quads, gluteus and hamstrings, work harder to perform exercises that you normally do. Used as part of your strength training program, they can be an effective tool. For those who may not have access to free weights or machines to build strength, they can be

a helpful addition to that part of your workout. Going out and buying ankle weights to enhance your exercise routine is one option for building strength, but it does come with potential negatives. To improve the quality of a cardiovascular program, there are other options out there. Running or walking up and down stairs, or taking your jog to an area where there are hills to run are both solid options for providing the additional challenge you seek.

The main benefit derived from the use of ankle weights comes when they are used for strength training targeted at the larger muscles of the legs. For someone who is performing leg lifts or knee raises of different kinds for the purpose of strengthening the lower body, ankle weights work like free weights for the legs. Even at two or five pounds, there is a tangible benefit to the leg

muscles when adding weight to those exercises. Developing speed makes ever more frequent use of the various technical exercise carried out with a ball. This is so because the ball makes the exercise more interesting, and brings them closer to match play. This helps to maintain the player's zest for the training work (ARPAD CSANADI 1965).

The modern concept of speed embraces those abilities which make it possible for football players to execute the most suitable action for a given situation as rapidly as possible. In some circles speed is often considered in a very narrow sense, as if it only consisted of speed in running. The ability to run fast is, of course, an indispensable weapon in a player's armoury, but is not sufficient in itself. There are players who can run fast, but who have great difficulty in starting, stopping, or changing direction. And how often a favourable situation arises where a player quickly grasps the situation, but is slow to act and so fails to exploit the opportunity.

But there is need for speed in football for other reasons, too. We must not disregard the fact that speed is the basis of taking-off effectively, that it is the basis of elasticity. Of course, we must not overestimate the role of sheer physical speed either. A halfback may very well recognize quickly what the simplest solution would be to anticipate the forward's attempt to break away, but be incapable, technically, of the rapid action the situation requires.

The quick recognition of a situation that has materialized, the rapid forwarding of impulses along the nerve tracks to initiate the necessary action, and the speedy execution of the concrete action itself is a valuable attribute. These qualities are necessary during every moment of play, from the first to the last. Practical experience shows that the standard of speed capacity of certain, usually not well prepared, players fluctuates greatly. In principle, they execute identical movements more slowly at the end of the playing time than at the beginning, or when they must make use of their speed capacity again at short intervals. A well-prepared player, who also possesses suitable so-called speed endurance, is able to execute certain movements over nearly

the same duration of time, both at the beginning of the playing period, and at the end.

Many experts regard speed as a capability which is "inborn", one which cannot be developed. It is true that the extent to which it can be developed is not nearly so great as that of endurance or strength, but with correct training the speed of thinking, the ability of the nerve tracks to conduct stimuli may be stepped up, the suitability of the muscles and joints for carrying out the commands may be improved (ARPAD CSANADI 1965).

## Methodology

In order to achieve the study, 40 men footballers were selected from Bharathiar university department and affiliated colleges, of Bharathiar university coimbatore, their age ranged between 18 and 25 years. The selected population were divided into two equal groups consist of 20 each. The group I (n=20) was considered as experimental group The group II (n=20) was considered as control group. The investigators did not made any attempt to equate the group. The control group was not given any treatment and the experimental group was given speed based skill training after ankle weight resistance training for three days per week, for a period of twelve weeks.

## Design

The evaluated physical and skill parameters, Explosive power was assessed by standing broad jump test and unit of measurement was in meters and kicking ability was assessed by warner soccer test and unit of measurement was in meters. The parameters were measured at baseline and after 12 weeks of speed based skill training after ankle weight resistance training were examined.

## Training Program

The training program was lasted for 60 minutes per session in a day, 3 days in a week for a period of twelve weeks duration. These 60 minutes included 5 minutes warm up and 5 minutes warm down remaining 35 minutes consists of 15 minutes ankle weight resistance

training and 20 minutes for speed based skill training. Every two weeks of training 5% of intensity was increased from 65% to 75% of work load. The training load was increased from the maximum working capacity of the subjects during the pilot study. The collected data on above mentioned parameter due to impact of speed based skill training after ankle weight resistance training was analyzed by using 't' test to find out the significant improvement between pre and post. In all cases the criterion for statistical significance was set at if 0.05 level of confidence ( $P < 0.05$ ).

Table - I reveals that the computation of 't' ratio between mean of pre and post test on explosive power of men footballers. The mean values of pre and post test of experimental group and control were 2.50, 2.78, 2.38 and 2.44 respectively. Since, the obtained 't' ratio 12.57 \*and 1.82, the required table value 2.09, for the degree of freedom 1 and 19 at 0.05 level of confidence. The results clearly indicated that the explosive power significantly improved for experimental group when compared to control group.

Table - II reveals that the computation of 't' ratio between mean of pre and post test on kicking ability of men footballers. The mean values of pre and post test of experimental group and control were 38.14, 38.31, 34.77 and 34.50 respectively. Since, the obtained 't' ratio 12.05 \*and 1.77, the required table value 2.09, for the degree of freedom 1 and 19 at 0.05 level of confidence. The results clearly indicated that the kicking ability significantly improved for experimental group when compared to control group.

The following bar diagram shows the mean values of pre test and post test on explosive power of experimental group and control group.

### Discussions on Findings

The results of the study indicated that the selected physical and skill performance such as explosive power and kicking ability were improved significantly after twelve weeks of speed based skill training after ankle weight resistance training.

<b>Table – I</b> Computation of 't'- ratio between pre and post test means of experimental group and control group on explosive power (in meters)				
Group		Mean	Standard deviation	t- ratio
<b>Experimental Group</b>	<b>Pre test</b>	2.50	0.280	12.57*
	<b>Post test</b>	2.78		
<b>Control Group</b>	<b>Pre test</b>	2.38	0.059	1.82
	<b>Post test</b>	2.44		
<b>Significant at 0.05 level of confidence (2.045)</b>				

<b>Table – II</b> Computation of 't'- ratio between pre and post test means of experimental group and control group on kicking ability				
Group		Mean	Standard deviation	
<b>Experimental Group</b>	<b>Pre test</b>	38.14	0.177	12.05*
	<b>Post test</b>	38.31		
<b>Control Group</b>	<b>Pre test</b>	34.77	0.268	1.77
	<b>Post test</b>	34.50		

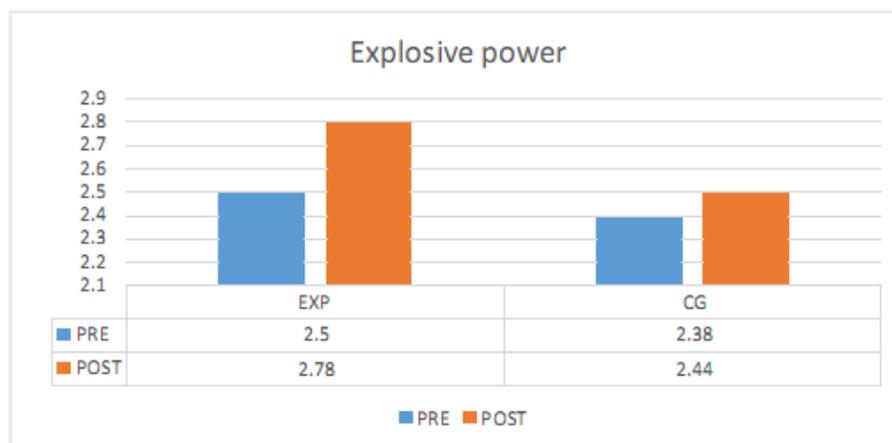


Figure1

The changes in the selected parameters were attributed the proper planning, preparation and execution of the training package given to the students. The findings of the present study had similarity with the findings of the investigations referred in this study. UfukSekir. (2003) investigated the effects of isokinetic exercise on strength, joint position sense and functionality in recreational athletes with functional ankle instability (FAI). Jullien., et.al (2008) studied the A Short Period of Lower Limb Strength Training Improve Performance in Field-Based Tests of Running and Agility in Young Professional Soccer Players. Wimmeret al (2011) studied the Speed Training Drills with Ankle Weights. Training with a string ladder wearing ankle weights will help improve foot speed and agility. Saltzman, et al (2004) studied the effect of Agility Ankle Prosthesis Misalignment on the Peri-Ankle Ligaments In the Agility total ankle replacement system, motion is constrained by the implant's articulating surfaces and the peri- ankle ligaments Mohanasundaram (2013)

S.A.Q training had significant effect on agility. Rajkovic, (2014) confirm a positive influence of SAQ training on certain parameters of speed and explosiveness of football players. Manikandan (2014) there was a significant difference on selected motor fitness components such as speed and leg strength between SAQ drills group and control group. Subramainiam (2014) there was a significant improvement in the speed and breath holding time for plyometric training group when compared with the control group.

Milanovic (2013) SAQ training is an effective way of improving agility, with and without the ball, for young soccer players and can be included in physical conditioning programme. Haldankar (2014) recommended soccer-specific strength training programs for twelve weeks as part of pre-season training programme for young soccer players. Thomas (2005) specific testing and training procedures for each speed component should be utilized when working with elite players.

### Conclusions

1. It was concluded that twelve weeks of speed based skill training after ankle weight resistance training produced significant improvement over explosive power of college men footballers.
2. Twelve weeks of speed based skill training after ankle weight resistance training produced significant improvement over kicking ability of college men footballers.
3. Further, it was concluded that speed based skill training after ankle weight resistance training is appropriate training period to bring out desirable changes over physical and skill performance variables.

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### Funding

This study was not funded by any grant

### Acknowledgements

The authors would like to thank every participant for his effort and time.

### Conflict of interest

None of the authors have any conflicts of interest to declare.

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### How to Cite this Article

K. Murugavel, D. Nandagopal, J. Nirendan, Impact of speed based skill training after ankle weight resistance training on selected physical and skill performance of men footballers, *Bharathiar National Journal of Physical Education and Exercise Sciences* 12(1) (2021) 11-17.