

Effect Of 30/40 Small Sided Football Training On Speed And Endurance Among Slum Children

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ABSTRACT

The purpose of the study was to find out the effect of 30/40 small sided football training on speed and endurance among slum children. To achieve the purpose of the study 30 slum children were selected from Royapuram, Chennai and their age ranged between 12 and 15 years and their ht = 161.8 ± 0.5 cm and wt = 50.7 ± 0.5 kg. The selected subjects were divided into two equal groups with 15 subjects each based on their initial football playing ability. Group I underwent 30/40 small sided football training, Group II consider as Control group and did not participate in any training. Training Programme limited with five days per week (three days training and two days game play) for six weeks. The selected variables such as speed and endurance were measured by 30 meter sprint and cooper test. The subjects of two groups were tested on selected variables prior and immediately after the training period. Collected data were analyzed by using a dependent 't'-test and analysis of covariance (ANCOVA) at 0.05 level of confidence. Results proved that 30/40 small sided football training improved speed and endurance of slum children.

KEYWORDS : Speed, Endurance, 30/40 Small sided football training.

INTRODUCTION

Participants benefit greatly from small-sided games. Children enjoy and learn more when they play small-sided games with adapted rules, according to studies and observations. Children get more touches on the ball, learn faster, and must make more decisions during the game, as well as maintain greater concentration because the ball is never far away. Children are also more involved in offensive and defensive movements, exposing them to a broader range of football situations. They enjoy themselves and learn more. (Hill-Haas et al., 2010)

To improve their touch and control, young children require spending a lot of time with the ball. Games with three (3vs3), four (4vs4), five (5vs5), or six (6vs6) players at a time have been demonstrated to be far more effective at developing children's skills. (Tessitore et al., 2006)

Meanwhile, FIFA-PMSE estimates that the global viewing audience for the 2018 World Cup will be 3.572 billion people and it's almost half of the world's population of 7.6 billion people (worldometers). (Goldblatt & Acton, 2018)

SMALL SIDED GAME

Football is an open-skill team sport characterized by success under various circumstances, so different aspects of performance can be expected to vary based on the situation. (Tessitore et al., 2006)

BENEFITS OF SMALL SIDED GAME

The number of technical actions increases as the number of players decreases, a small-sided game with a small number of players can provide a more effective technical training stimulus. (Jones and Drust, 2007)

SLUM CHILDREN'S

Slums are home to approximately one-third of the world's population and more than 60% on average of urban populations in developing countries, including a hundred million children. Slums are areas of severe poverty, overcrowding, inadequate water and sanitation, substandard infrastructure, inadequate access to basic health and education facilities, and other burdens that children and their families face (e.g., high unemployment, violence).

Understanding and addressing child wellbeing in slum settings is a top priority for paediatricians and those who care about children's health around the world. (Unger, A. 2013)

HYPOTHESIS

It was hypothesized that there would be significant improvement on the speed and endurance of slum children due to six weeks of 30/40 small sided football training.

DELIMITATIONS

- The subject's age ranged from 12 to 15 years.
- Thirty football-playing slum children from Royapuram, Chennai, were chosen at random.

- The study looked at the speed and endurance of slum children who play football.

LIMITATIONS

- The data was gathered from Royapuram slum children who were all beginners in football.
- The subjects engaged in regular physical activity, but the impact of such activities was not monitored.

METHODOLOGY

To meet the goal of the research study, 30 slum children from Royapuram, Chennai, were chosen, age ranged from 12 to 15 years and their ht = 161.8 ± 0.5 cm and wt = 50.7 ± 0.5 kg. Based on their initial football playing abilities, the selected participants were separated into two equal groups, each with 15 individuals. Group I undergone 30/40 small sided football training, while Group II, referred to as the Control group, did not engage in any training. On Speed and Endurance, all two groups were administered a pre-test. The post-test was completed after the six-week experimental period of 30/40 small sided football training. The 30 meter sprint and the cooper test were used to measure the selected variables such as speed and endurance. The experimental design selected for this study was pre and posttest randomized design. Before and after the training period, data was collected from each subject and statistically evaluated using a dependent 't'-test and analysis of covariance (ANCOVA).

TRAINING PROCEDURE

The experimental group was put through six weeks of 30/40 small sided football training, which lasted five days a week (three days training and two days game play). The training was scheduled for 60 minutes.

TABLE I. Training schedule (30/40 small sided football training)

Week 1&2				
Tue	Passing Drill	Repetition (or) Time	Sets	Distance / Time
	Square One Touch	10 rep 15 rep	6 sets 6 sets	2400m 3600m
	Square "Give and Go"	10 rep 15 rep	6 sets 6 sets	2400m 3600m
	Square "Short and Long"	10 rep 15 rep	6 sets 6 sets	2400m 3600m
Wed	Dribbling Drill	Repetition (or) Time	Sets	Distance / Time
	Toes Tapping	1 min 1min30sec	6 sets 6 sets	6 min 9 min
	Inside foot Tapping	1 min 1min30sec	6 sets 6 sets	6 min 9 min
	The Step on top	1 min 1min30sec	6 sets 6 sets	6 min 9 min
Thurs	Shooting Drill	Repetition (or) Time	Sets	Distance / Time
	Passing and Shooting	10 rep 15 rep	6 sets 6 sets	600 m 900m
	One on One towards Goal	10 rep 15 rep	6 sets 6 sets	600 m 900m
	Dribbling and Shooting	10 rep 15 rep	6 sets 6 sets	600 m 900m

Week 3&4				
Tue	Passing Drill	Repetition (or) Time	Sets	Distance/ Time
	Hitting the Flag	10 rep	6 sets	2400m
		15 rep	6 sets	3600m
	Follow Ball Drill	10 rep	6 sets	3000m
		15 rep	6 sets	4500m
	Rotary Drill	10 rep	6 sets	2400m
		15 rep	6 sets	3600m
	Wed	Dribbling Drill	Repetition (or) Time	Sets
Round Dribbling		1 min	6 sets	6 min
		1min30sec	6 sets	9 min
Shoulder side to side Fake		1 min	6 sets	6 min
		1min30sec	6 sets	9 min
Running and changing direction of Ball		1 min	6 sets	6 min
		1min30sec	6 sets	9 min
Thurs		Shooting Drill	Repetition (or) Time	Sets
	Controlling and Shooting	10 rep	6 sets	600 m
		15 rep	6 sets	900m
	Turning Around and Shooting	10 rep	6 sets	600 m
		15 rep	6 sets	900m
	Three station continues Shooting	10 rep	6 sets	900 m
		15 rep	6 sets	1350m

Week 5&6				
Tue	Passing Drill	Repetition (or) Time	Sets	Distance/ Time
	Reverse Passing	10 rep	6 sets	1200m
		15 rep	6 sets	1800m
	Passing in Rotation manner	1 min	3 sets	3 min
1 min 30sec		6 sets	9 min	
The Giving and Going back	1 min	3 sets	3 min	
	1 min 30sec	6 sets	9 min	
Wed	Dribbling Drill	Repetition (or) Time	Sets	Distance/ Time
	Rolling the Ball form top	1 min	6 sets	6 min
		1min30sec	6 sets	9 min
	Changing the Direction with any action	1 min	6 sets	6 min
1min30sec		6 sets	9 min	
Change the Direction by double tapping	1 min	6 sets	6 min	
	1min30sec	6 sets	9 min	
Thurs	Shooting Drill	Repetition (or) Time	Sets	Distance/ Time
	Rapidly Firing	10 rep	6 sets	600 m
		15 rep	6 sets	900 m
	Hurdling and run shooting	10 rep	6 sets	600 m
15 rep		6 sets	900 m	
Role and Shoot on target	10 rep	6 sets	600 m	
	15 rep	6 sets	900 m	
*Monday & Friday no training only game. **In training days only 10 min game played.				
*Warming up 10 min.** After session over Cool-down 10 min Stretching and discussion.				

STATISTICAL PROCEDURE

To determine the significance difference, the acquired data were statistically analysed using the dependent 't' test and analysis of covariance (ANCOVA) method.

RESULTS AND DISCUSSIONS

The data pertaining to the variables in this study were examined by using dependent 't' test to find

out the significant improvement and analysis of covariance (ANCOVA) for each variables separately in order to determine the difference and tested at 0.05 level of significance. The analysis of dependent 't' test on data obtained for Speed and Endurance of the pretest and posttest means of experimental and control group have been analyzed and presented in Table II.

TABLE – II MEAN AND DEPENDENT 'T' TEST OF EXPERIMENTAL AND CONTROL GROUPS ON SELECTED SPEED AND ENDURANCE

Variables	Mean	30/40 Small Sided Football Training	Control Group
Speed	Pre Test	6.23	6.24
	Post Test	6.09	6.24
	't' test	5.41*	0.90
Endurance	Pre Test	1716.67	1708.67
	Post Test	1766.67	1690.00
	't' test	3.42*	2.04

*Significant at 0.05 level of confidence (14) is 2.145

The obtained 't' ratio value on Speed (5.41) and Endurance (3.42) of experimental group was higher than the table value 2.145, it was understood that the 30/40 small sided football training had made significant improvement on Speed and Endurance. However, the control group has not made significant changes as the

obtained 't' value was lesser than the table value 2.145, because it was not subjected to any specific training. The analysis of covariance on the data obtained on Speed and Endurance due to the impact of 30/40 small sided football training and control groups have been analyzed and presented in Table III.

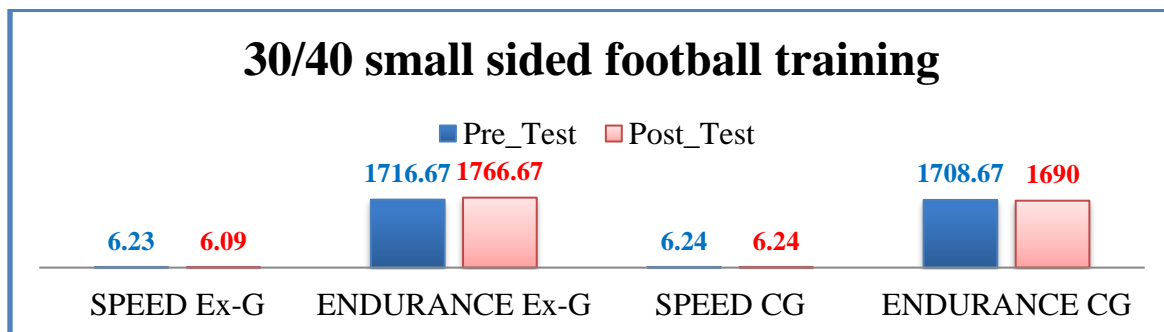


FIGURE - I SHOWING THE MEAN VALUES OF SPEED, ENDURANCE FOR EXPERIMENTAL GROUP AND CONTROL GROUPS AMONG SLUM CHILDREN

TABLE – III ANALYSIS OF COVARIANCE OF EXPERIMENTAL AND CONTROL GROUPS ON SPEED AND ENDURANCE

Variables	Adjusted Post Test Means		Source of variance	SS	df	Mean squares	F Ratio
	30/40 Small sided Football training	Control Group					
Speed	6.09	6.24	Between	0.18	1	0.18	4.16*
			Within	1.22	27	0.04	
Endurance	1766.67	1690.00	Between	44083.33	1	44083.33	6.88*
			Within	179333.33	27	6404.76	

*Significant Table F-ratio at 0.05 level of confidence for 1 and 27 (df) = 4.196

Table III exhibited that the obtained 'F' ratio value of 4.16 and 6.88 which were higher than the table value of 4.196 with df 1 and 27 required to be significant at 0.05 level. Since the obtained value of 'F' ratio was higher than the table value, it indicated that there was significant difference among the adjusted posttest means of 30/40 small sided football training and control group on Speed and Endurance.

The 30/40 small sided football training showed the significant difference than control group on Speed and Endurance.

The slum children involved in 30/40 small sided football training learnt to move the arms and improved the proper running technique as the children were beginners (Atiq, A., Tangkudung, J., & Mulyana, M, 2017). 30/40 small sided football training drills activated the fast twitch muscle fibers as well as slow twitch which helps in generating more speed (Hammami., et.al., 2018)

Undergoing six weeks of 30/40 small sided football training improved the neuromuscular coordination thereby increasing the effectiveness and efficiency of skeletal muscle. Upgraded nervous transmission improved the cardio respiratory function, resulting in the healthy and efficient heart and lungs (Jack.H.Willmore and David.L.Costill, 2004) .

1. The result of the study showed that 30/40 small sided football training group had improved Speed of the slum children in the age group of 12 to 15 years.
2. The result of the study showed that 30/40 small sided football training group had improved endurance of the slum children in the age group of 12 to 15 years.

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CONCLUSION

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