



Impact of Kettle Bell Training on Selected Performance Variables among Soccer Players

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Abstract

The purpose of the study was to find out the kettle bell training on selected performance variables among soccer players. Thirty male soccer players were selected randomly from the M.D.T. Hindu College, Tirunelveli District, Tamilnadu State, India, and their age ranged from 18 to 25 years. The subjects were randomly assigned into two equal groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent kettle bell training and Group 'B' acted as control which was not exposed any specific training/ conditioning. The performance variables passing, dribbling and shooting were assessed the Mor-Christian soccer skill test. The data was collected before and after 6 weeks of kettle bell training. The data was analyzed by applying Analysis of Co-Variance (ANCOVA) technique to find out the impact of Kettle bell training programme. The level of significance was set at 0.05. The findings of the present study have strongly indicates that Kettle bell training of six weeks has significant improvement in all the selected performance variables namely passing, dribbling and shooting among soccer players.

Keywords: Kettle bell Training, Passing, Dribbling, Shooting and Soccer Players.

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Introduction

Soccer is a game of physical and mental challenges. One must execute skilled movements under generalized conditions of restricted space, limited time, physical and mental fatigue, and opposing players. One must be able to run several miles during a game, mostly at sprint like speed and respond quickly to a variety of rapidly changing situations during play. Finally, one needs a thorough understanding of individual, group and team tactics. One's ability to meet all these challenges determines how well One's perform on the soccer field (Joseph A. Luxbacher, 1996).

A kettlebell or girya is a traditional Russian cast iron weight that looks like a cannonball with a handle. It was very popularity in Russia that any strongman or weightlifter was referred to as a girevik, or 'a kettlebell man'. The actual origin of the kettlebell however will always be subject to debate. The Scots will claim that they invented the kettlebell as part of the Highland Games, and the Chinese say that the giant padlocks used by the Shaolin monks were the original kettlebells. They are still used by the American and Russian military today as well as Hollywood stars and professional sports players. They are used by Chelsea and Liverpool football clubs and Castleford Tigers and Leeds Rhinos rugby teams. Kettlebells are now widely regarded as the

ultimate training tool for all round fitness and physical development and are even being used by some physiotherapists to aid injury rehabilitation. The main reason that the kettlebell is such a fantastic tool is due to the handle being outside of the mass of the bell. This creates an extra axis on movements like the swing and the snatch, making the movement more than just strength and forcing the body to overcome, absorb and develop the additional momentum. A properly executed and balanced kettlebell workout will work every muscle in the body, and as your confidence grows you can move onto more complex routines with double kettlebells or heavier weights. (Liam O'Brien, 2007).

The kettle bell exercises involve multi-joint movements, where the lifts originate from the floor and the weight is raised above the head. Therefore it is reasonable to assume that kettle bell exercise routines could potentially increase flexibility and balance. For instance, a study by Kiebele and Behm (2009) looked at lower body resistance training workouts. Strength is one of the primary tools for soccer players for performing the skills. Kettle bell training improves strength of the various parts of the body which will definitely support to improve the skills in soccer.

Methodology

The objective of the study was to design kettle bell training on selected performance variables among soccer players. Thirty male soccer players from the M.D.T. Hindu College, Tirunelveli District, Tamilnadu State, India, were selected at random and their age

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ranged from 18 to 25 years. For the present study pre test – post test randomized group design which consists of experimental group and control group was used. The subjects were randomly assigned into two equal groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent kettle bell training for six week of training and Group 'B' acted as control which was not exposed any specific training / conditioning.

Selection of Variables and Tests

The present study was undertaken primarily to find out the effect of kettle bell training on selected performance variables among soccer players. As per the available literature the following tests were used to collect relevant data on the selected dependent variables and they were presented in below the table I.

Table I. Selection of variables and tests

S.No	Criterion Variables	Test Items	Unit of Measurement
1	Passing	Mor - Christian Soccer	In points
2	Dribbling	Mor - Christian Soccer	In seconds
3	Shooting	Mor - Christian Soccer	In points

The data was collected before and after six weeks of training. The data was analyzed by applying analysis of Co-Variance (ANCOVA) technique to find

out the impact of kettle bell training programme. The level of significance was set at 0.05.

Results

Table II. Pre, post and adjusted post tests, mean and standard deviation scores of experimental and control groups on selected performance variables of among soccer players

Variables	Group	Descriptive statistics	Pre Test	Post Test	Adjusted post
Passing (In Points)	KBTG	Mean	6.87	8.41	8.24
		SD(\pm)	12.8	1.09	
	CG	Mean	4.02	4.98	5.43
		SD(\pm)	1.07	1.04	
Dribbling (In Seconds)	KBTG	Mean	32.43	27.43	26.93
		SD(\pm)	3.75	3.11	
	CG	Mean	31.33	31.68	32.14
		SD(\pm)	3.15	3.61	
Shooting (In Points)	KBTG	Mean	45.33	64.30	64.51
		SD(\pm)	11.58	12.13	
	CG	Mean	41.24	41.12	43.78
		SD(\pm)	9.55	9.42	

The findings pertaining to analysis of co-variance between experimental and control groups on

selected performance variables among soccer players are presented in table III.

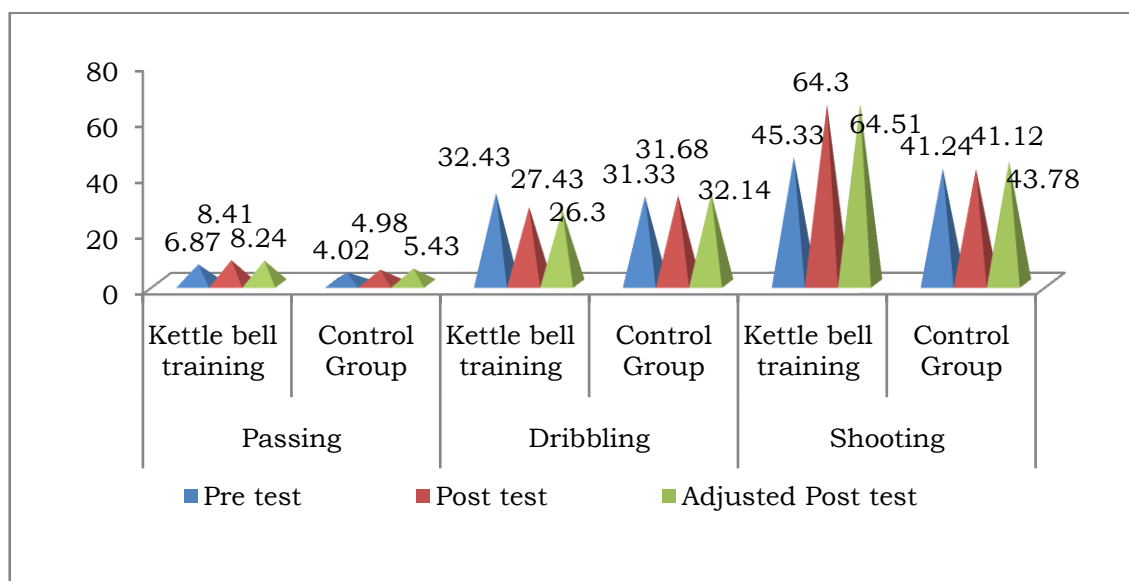
Table III. Analysis of covariance of the data on selected performance variables of pre, post and adjusted post test scores of experimental and control groups

Variables	Test	Source of Variance	Sum of Squares	df	Mean Square	F
Passing (In Points)	Pre Test	BG	4.71	1	4.71	3.18
		WG	41.44	28	1.48	
	Post Test	BG	20.12	1	20.12	15.72*
		WG	35.84	28	1.28	
	Adjusted Post test	BS	13.01	1	13.01	13.69*
		WS	25.65	27	0.95	
Dribbling (In Seconds)	Pre Test	BG	32.59	1	32.59	2.68
		WG	340.48	28	12.16	
	Post Test	BG	165.40	1	165.40	13.58*
		WG	341.04	28	12.18	
	Adjusted Post test	BS	191.13	1	191.13	33.65*
		WS	153.36	27	5.68	
Shooting (In Points)	Pre Test	BG	136.56	1	136.56	1.07
		WG	3573.64	28	127.63	
	Post Test	BG	4297.50	1	4297.90	34.17*
		WG	3521.84	28	125.78	
	Adjusted Post test	BS	6721.59	1	6721.59	49.54*
		WS	3663.36	27	135.68	

** Significant at 0.05 level. The table value required for 0.05 level of significance with df 1 and 28 is 4.21 & 1 and 27 is 4.20.

The above table reveals that the obtained 'F' value of post test scores 15.72, 13.58 and 34.17 was found to be significant at 0.05 level with df 1, 28 as the table value of 4.21 was less than calculated value at 0.05 of confidence. The table also indicated that there was a significant difference in post test score of passing, dribbling and shooting of soccer players between experimental and control groups. The above table also

reveals that the obtained 'F' value of adjusted post test means of 13.69, 33.65 and 49.54 was found to be significant at 0.05 levels with df 1, 27 as the table value of 4.21 was less than calculated value at 0.05 of confidence. The table also indicated that there was a significant difference in adjusted post test means of passing, dribbling and shooting of soccer players between experimental and control groups.

**Figure I.** The pre, post and adjusted post test mean values of experimental and control groups on selected performance variables among soccer players

Discussion and findings

The findings of the present study have strongly indicated that six weeks of kettle bell training had shown significant improvement in all the selected performance variables namely passing, dribbling and shooting among soccer players. The control group did not shown improvement in selected performance variables such as passing, dribbling and shooting. The results of this investigation are also supported by the following studies of Falatic (2009), Kaleemulla et al., and Purusothaman & Kalidasan (2014).

Conclusions

1. The experimental group showed significant improvement in the selected performance variables such as passing, dribbling and shooting after underwent six weeks of kettle bell training among soccer players.
2. The control group did not shown significant improvement in any of selected variables among soccer players.

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