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Impact of Specific Agility Drills Training on Selected Motor Fitness Variables of Inter Collegiate Badminton Players

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Abstract-

The aims of the study to examine the badminton player's motor fitness variables. To achieve the purpose of the study, thirty (N=30) inter collegiate badminton players were selected randomly in the age group of 19 to 21 years from Dadasaheb Bidkar Art's, Science and Commerce, college, Peth, Nashik. They were assigned into two group's namely experimental group I (agility drills training) and group II acted as control group. Experimental groups underwent training for a period of six weeks. The data collected from experimental group and control groups on selected motor fitness variables in relation to and adjusted post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences, whenever the 'F' ratio for adjusted test was found to be significant, Scheffe's post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses.

Introduction

The Game of Badminton is wonderful sport that requires eye hand coordination, striking and quick movements and change of direction in pursuit of the shuttle cock. Badminton is a power game requiring quick and powerful movements to all directions to return the shuttle cock to the opponents' side of the court. Badminton is an extremely demanding sport. At an elite level, players are often required top form at their limits of speed, agility, flexibility, endurance and strength. On top of all of this, players must maintain a high state of concentration in order to meet the tactical as well as mental demands of dealing with their

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opponents. It is therefore essential that everyone involved with the modern game ought to be familiar with the fitness requirements of the game and must know how 'Badminton fitness' can be enhanced.

Material and Method

To achieve the purpose of the study, thirty (N=30) inter collegiate badminton players were selected randomly in the age group of 19 to 21 years from Dadasaheb Bidkar Art's, Science and Commerce, college, Peth, Nashik. They were assigned into two group's namely experimental group I (agility drills training) and group II acted as control group. Experimental groups underwent training for a period of six weeks. In this study dependent variable was motor fitness variable (agility and speed) and independent variable was specific agility drills training. To achieve the purpose of the study, random group design was selected. The subjects were randomly assigned into three equal groups of 15 each. The pre and post test was conducted on the above said variables before and after the six weeks for all the experimental group. The training program was scheduled at 4.00 pm to 6.00 pm on alternate days.

The following criterion measures were chosen for the testing the hypotheses.

Sr. no.	Variables	Test	Unit of Measurement
1.	Agility	'T' Test	Seconds
2.	Speed	50-meter sprint	Seconds

Prior to the test the investigator explained to the subject about the purpose of the specific agility drills training. Investigator explained brief introduction regarding the purpose, effects, and benefits of the training to the subjects participating on the study. The study with a view to get full, cooperation from the subject and also to motivate them to exhibit their level of performance in the training.

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Training Program

Specific Agility Training

Training	Agility Drills	Sets	Reps	Training
1 & 2	Pro Agility Drill (Own body)	2	3	Low
	Pro Agility Drill (With stick)			
	Pro Agility Drill (With Rolling Ball)			
	Pro Agility Drill (With Dribbling Ball)			
	Wildcat Agility Drill (Own body)	2	3	Low
	Wildcat Agility Drill (With stick)			
	Wildcat Agility Drill (With Rolling Ball)			
	Wildcat Agility Drill (With Dribbling Ball)			
3 & 4	Four Corner Carioca Drill (Own body)	4	6	Medium
	Four Corner Carioca Drill(With stick)			
	Four Corner Carioca Drill(With Rolling Ball)			
	Four Corner Carioca Drill(With Dribbling Ball)			
	Plus Agility Drill (Own body)	4	6	Medium
	Plus Agility Drill(With stick)			
	Plus Agility Drill(With Rolling Ball)			
	Plus Agility Drill(With Dribbling Ball)			
5 & 6	Figure 8 Agility Drill (Own body)	6	8	High
	Figure 8 Drill(With stick)			
	Figure 8 Drill(With Rolling Ball)			
	Figure 8 Drill(With Dribbling Ball)			
	'N' Agility Drill (Own body)	6	8	High
	'N' Agility Drill(With stick)			

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	'N' Agility Drill(With Rolling Ball)			
	'N' Agility Drill(With Dribbling Ball)			

Result

Analysis of Covariance (ANCOVA) to find out the significance among the mean differences, whenever the 'F' ratio for adjusted test was found to be significant, Scheffe's post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses.

Table no. 1

Computation Analysis of Covariance for Pre, Post and Adjusted Post Test on Speed

Test	SADT	CG	SV	SS	df	MS	F
Pre Test	9.11	8.90	Between	0.56	2	0.28	1.44
			Within	5.27	27	0.20	
Post Test	8.83	8.96	Between	1.31	2	0.66	3.28
			Within	5.41	27	0.20	
Adjusted	8.67	8.96	Between	0.84	2	0.42	**8.52***
			Within	1.28	27	0.05	

Figure 1: Bar diagram showing the pre, post and adjusted posttest mean values on speed of experimental and control groups (Scores in Seconds)

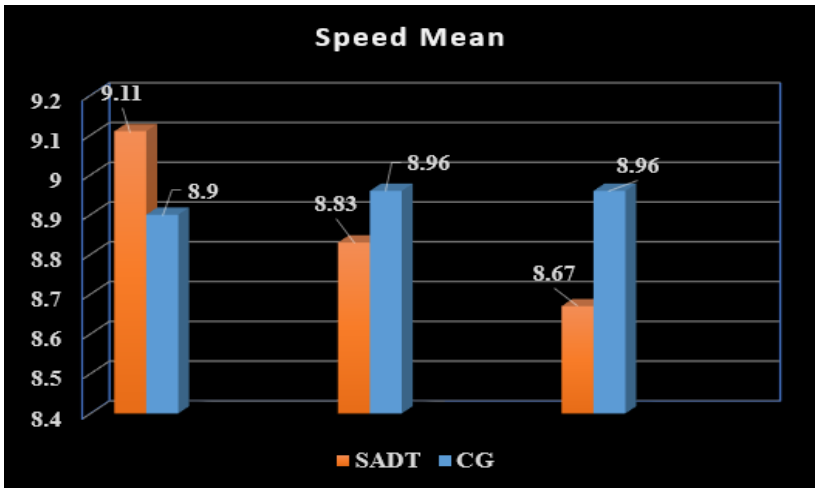

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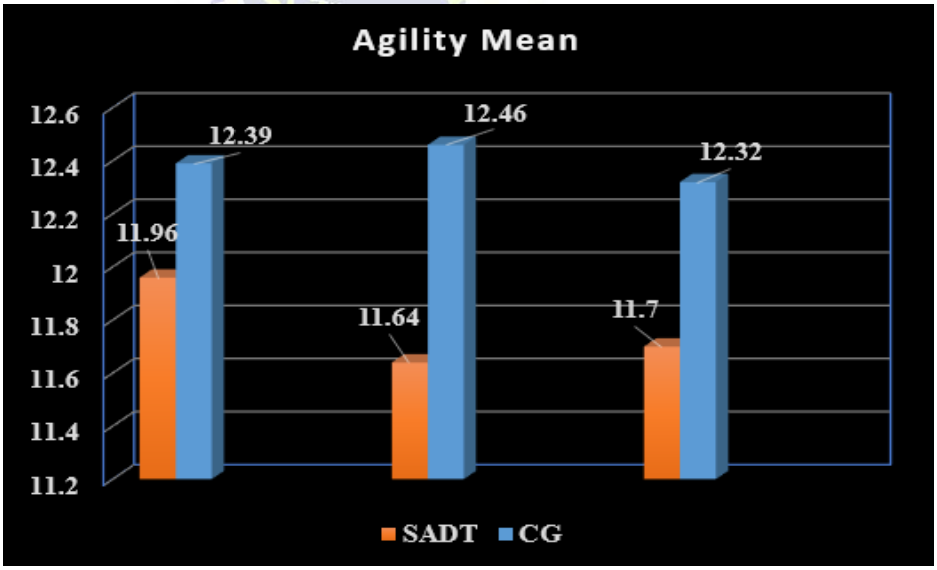
Table no. 2

Computation Analysis of Covariance for Pre, Post and Adjusted Post Test on Agility

Test	SADT	CG	SV	SS	df	MS	F
Pre Test	11.96	12.39	Between	1.30	2	0.65	1.07
			Within	16.42	27	0.61	
Post Test	11.64	12.46	Between	4.45	2	2.23	**5.78***
			Within	10.39	27	0.38	
Adjusted	11.70	12.32	Between	2.24	2	1.12	**4.49***
			Within	6.49	27	0.25	

Figure 2 : Bar diagram showing the pre, post and adjusted posttest mean values on agility of experimental and control groups (Scores in Seconds)



Discussion on Finding

The results it was proved that there was a significant improvement on motor fitness variables such as agility and speed due to specific agility drills training. These results were in

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line with the results of Eng Hoe Wee, et al.,(2017) founded high intensity intermittent badminton multi-shuttle feeding training significant improvements in leg reactive strength and agility in experimental group.

Conclusion

It was concluded that there was a significant improvement on selected motor fitness variables such as agility and speed due to specific agility drills training of badminton players.

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