#### ISSN NO: 2454 - 2326

# North Asian International Research Journal Consortium

North Asian International Research Journal

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Multidisciplinary

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ISSN NO: 2454 - 2326

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## EFFECT OF SIX WEEK AEROBICS TRAINING PROGRAM ON GENERAL MOTOR ABILITY OF STATE LEVEL BADMINTON PLAYERS

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#### **ABSTRACT**

The present study was undertaken to find out whether the effect of Aerobics training program helps to promote the general motor ability of junior state level badminton players. The design of the present study was experimental i.e. pre test post test control group design. Samples of 40 male students belonging to 15 to 17 years was randomly selected, the subject were divided randomly into two equal groups, experimental and control groups. The training was restricted only to experimental group over a period of 6 weeks. The test selected to measure general motor ability components were administered during pre and post test. The collected data was analyzed by using 't' test to compare the significance of general motor ability components. The analysis of data reveals that the experimental group has improved cardiovascular endurance, Agility, Muscular Endurance, hand eye coordination and foot eye coordination, however, no significant difference was observed in reaction time in Badminton players.

#### **INTRODUCTION**

Badminton is a sport that many people enjoy playing and forming a bond over as it is an easy sport to learn and equally enjoyable to partake in. It is a popular fast-paced indoor sport. To be successful in badminton you need excellent court speed and agility, with a good background of endurance. The fitness training for badminton should focus on speed, agility and endurance, with also strength and flexibility also important. A player who is weak physically won't be able to stay long on the court during their training due to the lack of fitness. Players in desire of more training would need a better fitness. Physical fitness has direct relevance to performance in sports. It enables an individual to participate in game and sports with greater cardio endurance, agility, muscular endurance, reaction time, hand eye co-ordination, foot-eye co-ordination, makes him/her capable of attaining good performance in sports. It is well known that Aerobics exercise training is effective in enhance the performance in almost all sports activities.



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#### **METHODOLOGY**

To compare the selected components general motor ability of badminton players, 40 boys' students belonging to 14-16 years were randomly selected and they were divided into two groups.

VARIABLES	TEST	UNITS	
Cardiovascular endurance	12 min run and walk test	Meter	
Agility	(4*10 meter)shuttle run	Sec.	
Muscular endurance	Bent knee sit ups	Number	
Reaction time	Nelson hand reaction time test	Sec.	
Hand eye co-ordination	Ball transfer	Sec.	
Foot eye co-ordination	Foot prints pattern	Sec.	

#### **RESULT AND DISCUSSION:**

The data were analyzed by using 't' test. The data pertaining to this has been presented in table-1

Table-1: Comparison of mean gain in selected variables between Control and Experimental group

Variables	Group	Mean	Mean	Standard error	't'	Sig.
	compared	gain	difference	mean gain		
Cardio vascular	Control vs.	-49.5600-	160.04000	33.09411	4.836	.000p<0.05
endurance	experimental	209.600				
Agility	Control vs.	1480 -	-1.19520	.23563	-5.072	.000 p<0.05
	experimental	1.0472				
Muscular	Control vs.	5200 -	3.28000	.81878	4.006	.000 p<0.05
endurance	experimental	3.8000				
Reaction time	Control vs.	0064 -	00549	.00504	-1.089	.282 p>0.05
	experimental	.0009				
Hand eye co-	Control vs.	3396	-1.41720	.55241	-2.565	.015 p<0.05
ordination	experimental	1.0776				
Foot eye co-	Control vs.	0024	-1.26160	.11438	-11.030	.000 p<0.05
ordination	experimental	1.2592				

Table-1 revealed that the mean gain of cardio vascular endurance of control and experimental –group is 49.5600 and 209.6000 respectively whereas the difference in mean gain is 160.04000 which are in favor of experimental group. The 't' value of the same is 4.836 which is significant at 000 (p<0.05>level.





The mean gain of agility of control and experimental group is .1480 and 1.0472 respectively whereas the difference in mean gain 1.19520 which is in favor of experimental group. The 't' value of the same is 5.072 which is significant at .000(p<0.05)level. In muscular endurance the mean gain of control and experimental group is .5200 and -3.8000 respectively whereas the difference in mean gain -3.28000 is which is in favor of experimental group. The 't' value of the same is .4006 which is significant at .000(p>0.05)level. No. significant difference has been found on reaction time at .282(p>0.05) level. Hand eye coordination showed significant at .015 (p<0.05) level. Foot eye coordination also showed significant at .000 (p<0.05) level.

#### **CONCLUSIONS:**

- 1. The aerobics training program was found to helpful to improve the motor ability such as cardiovascular endurance, agility, muscular endurance, hand eye co-ordination and foot eye co-ordination.
- 2. In case of reaction time the training of aerobics does not show significant improvement. This might be due the less duration of total study.

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