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DYNAMIC VISION TRAINING TO IMPROVE HIGH SERVE AND OVERHEAD SHOT OF BADMINTON PLAYERS: A 12 WEEKS PROSPECTIVE STUDY

Physical Education

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ABSTRACT

The purpose of the study was to analyze the dynamic vision training to improve high serve and overhead shot of badminton players. The study was conducted on thirty two (N=32) college men badminton players who were studying various affiliated colleges in Alagappa University, Karaikudi, Tamilnadu, India. Subjects were randomly assigned equally into two groups, Group –I underwent Dynamic Vision Training Group (n = 16) and Group II (n=16) acted as control Group. Among various Badminton skills high serve and overhead shot were selected as dependent variables. The selected badminton skills were assessed through subjective rated scale. The data was collected from the experimental and control groups were statistically examined with Analysis of covariance (ANCOVA). High serve and overhead shot showed significant difference between the Experimental group and control group.

KEYWORDS

Vision Training, Badminton, High serve, Overhead shot

INTRODUCTION

There can be no doubt that that athlete's visual skills (good or bad) have a significant impact (positive or negative) on their performance. Optometrist have demonstrated that visual skills like all physical skills can be taught, trained, practiced and perfected (Edward et al., 2005).

Most players are similar in size ,speed and conditioning and all learn basic technique, but we have found one of the critical differences between athletes are their visual skills and visual abilities .it have proven in many researches and we can find it in many articles. Chances are that every athlete can improve in one or more visual skills area, i.e. dynamic visual acuity, visual recognition skills, depth perception, tracking or focusing abilities or even eye sight. Vision is the key of victory in all sports and vision performance exercises will become an integral part of athletic training in the near future (Mitchell and Bruce 2002). Badminton is a multidisciplinary skill. A successful player need good physical fitness .but, hand eye coordination (HEC) and visual skills may be very useful for players. In our study, the eye works performance program has been designed to provide visual skills assessments and training for all athletes. Using the eye works testing protocol; each athlete's visual motors skills and sport skills are measured and recorded. We had chosen 40 badminton players and train them for 10 sessions and every session had take 40 minutes .But because their differentiation of their skills and level of their sport, we focused on professional athletes who had similar sport levels and sport skills.

The field of sports vision is continuing to grow, with athletes seeing the benefit of incorporating vision drills as part of their training regimen. Dynamic visual acuity (DVA) is a very important aspect of the visual system and is necessary for sport, providing the ability to track a moving object while our head is moving.

Sports vision training is a group of techniques directed to preserve and improve one's visual function with the goal of enhancing sports performance by improving visual ability, which is required for different sporting activities (Quevedo & Sole, 1995). Sports vision training involves the abilities of peripheral vision, visual concentration, hand-eye coordination, reaction time, and anticipation (Abernethy & Wood, 2001), among others. Visual ability is extremely important to the success of an athlete.

METHODOLOGY

The study was conducted on thirty two (N=32) college men badminton players who were studying various affiliated colleges in Alagappa University, Karaikudi, Tamilnadu, India. Subjects were randomly assigned equally into two groups, Group –I underwent Dynamic Vision Training Group (n = 16) and Group II (n=16) acted as control Group. The training period was limited to 12 weeks. All the two groups were tested on selected criterion variables such as High Serve and Overhead shot prior to and immediately after the training programme. The selected badminton skills such as high serve and overhead shot were assessed through subjective rated scale.

Results and Discussion

The data collected from the experimental group and control group prior and after experimentation on selected variables were statistically examined by analysis of covariance (ANCOVA) was used to determine differences, if any among the adjusted post test means on selected criterion variables separately. The level of significance was fixed at .05 level of confidence to test the 'f' ratio obtained by analysis of covariance on selected criterion variables.

Table – I

THE SUMMARY OF MEAN FOR THE PRE AND POST TEST DATA ON SELECTED VARIABLES OF DYNAMIC VISION TRAINING GROUP AND CONTROL GROUP

Criterion variables	Mean	Dynamic Vision Training Group	Control group
High Serve	Pre test mean	5.5.	5.75
	Post test mean	7.00	5.69
Over head shot	Pre test mean	5.44	5.81
	Post test mean	7.19	5.75

Table – I shows that mean, of High serve and Overhead shot between the pre and post tests means of Dynamic Vision Training Group were greater than the Control Group.

It was concluded that Dynamic Vision Training Group had significant improvement in the performance of High serve and Overhead shot. However control group had no significant improvement in the performance of selected variables.

The analysis of covariance of High serve and Overhead shot of Dynamic Vision Training Group and control group have been analyzed and presented in Table – II.

Table – II

ANALYSIS OF COVARIANCE ON CRITERION VARIABLES OF EXPERIMENTAL AND CONTROL GROUPS

Criterion Variable	Adjusted Post Test means		Source of variance	Sum of square	df	Mean squares	'f' - ratio
	Dynamic Vision Training Group	Control group					
High Serve	7.11	5.58	B	18.01	1	18.01	108.91*
			W	4.80	29	0.17	

Over head shot	7.33	5.61	B	21.46	1	21.46	54.76
			W	11.36	29	0.39	

**** Significant at .05 level of confident.***

Table value required for significance at .05 level with df 1 and 29 is 4.18

From table – II, the adjusted post test mean value for high serve and over head shot were, 7.11, 5.58, 7.33 and 5.61 respectively, the obtained value of 'f' - ratio is 108.91 and 54.76 these f-values are more than the table value of 4.18 for df 1 and 29 required for significant at 0.05 level of confidence. The results of the study indicated that significant differences exist among the adjusted post test means of Dynamic Vision Training group and control group on the development of high serve and over head shot.

The Adjusted post test mean for Dynamic vision training and control group on high serve and over head shot were graphically represented in the following Figure-I & Figure-II.

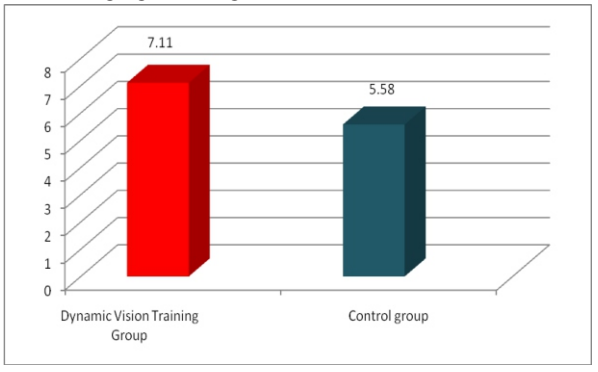

Figure-I: The Adjusted mean for Dynamic Vision Training group and Control group on High serve.

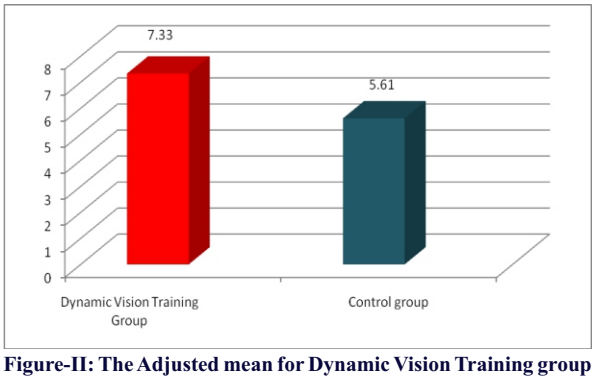

Figure-II: The Adjusted mean for Dynamic Vision Training group and Control group on Overhead Shot

Conclusion

From the analysis of the data, Dynamic Vision Training Group showed significantly increase the Badminton skills such as high serve and over head shot, when compared to the control group.

References

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