



ISSN: 2456-0057

IJPNPE 2018; 3(1): 1012-1013

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www.journalofsports.com

Received: 06-11-2017

Accepted: 10-12-2017

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Individualized and combined effect of interval and swissball training on playing ability among shuttle badminton players

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Abstract

The purpose of the study was to find out the individualized and combined effect of interval and swissball training on playing ability among shuttle badminton players. The study was formulated as a true random group design, consisting of a pre- test and post-test. Sixty shuttle badminton players from Kerala, India were selected at random ages ranged from 18 to 25 years. This initial test scores formed as pre test scores of the subjects. Experimental Group I was exposed to interval training, Experimental Group II was bared to swissball training, Experimental Group III was exposed to combined interval and swissball training and control cluster was not allowed. The duration of experimental period was 12 weeks. After the experimental treatment, all the sixty subjects were tested on their selected variables. The pre test and post test scores were subjected to Analysis of Covariance (ANCOVA) and Scheffe's post hoc test was used. The results of the study proved that individualized and combined interval and swissball training significantly improved the playing ability of badminton players.

Keywords: interval training, swissball training, playing ability, badminton

Introduction

In present day situation, sports assume an extremely significant part in the contemporary civilization. It is critical to an individual, a gathering, a country and truly the world. The universe of game has a fashionable interest among individuals of any age in male and female. A great part of the attraction of games originates from the wide assortment of experience and emotions that reaches from commitment, delight, triumph, disappointment, exhaustion, agony, fortification and sentiment belongingness. Games can bring cash, quality, position and cooperative attitude; games can likewise bring catastrophe, pain and even passing. Human development is a related logical train that reviews human development in all settings including that of game. The investigation of Sport Science customarily joins territories of physiology, brain research, engine control and biomechanics. It additionally incorporates other teach, for example, sustenance and eating regimen, sports innovation, anthropometry, kin anthropometry, and execution examination. Games researchers and execution experts are developing sought after with the consistently extending focus inside the tiring scene around achieving the best results. Through the assessment of science and amusement, researchers have urbanized a more conspicuous cognizance on how the human body reacts to work out, planning, assorted situation and various idiosyncratic lift.

Methodology

The study was formulated as a true random group design, consisting of a pre- test and post-test. Sixty shuttle badminton players from Kerala, India was selected at random ages ranged from 18 to 25 years. This initial test scores formed as pre test scores of the subjects. Experimental Group I was exposed to interval training, Experimental Group II was bared to swissball training, Experimental Group III was exposed to combined interval and swissball training and control cluster was not allowed. The duration of experimental period was 12 weeks. After the experimental treatment, all the sixty subjects were tested on their selected variables. The pre test and post test scores were subjected to dependent 't' test, Analysis of Covariance (ANCOVA) and Scheffe's post hoc test was used.

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Results

Table 1: Analysis of covariance of interval training swissball training combined interval and swissball training and control groups on playing ability.

| | ITG | SBTG | CISBTG | CG | Source of Variance | Sum of Squares | DF | Means Squares | F-ratio |
|---------------------------|------|------|--------|------|--------------------|----------------|----|---------------|---------|
| Pre-Test Means | 3.60 | 3.46 | 3.33 | 3.13 | BG | 1.78 | 3 | 0.59 | 0.82 |
| | | | | | WG | 40.40 | 56 | 0.72 | |
| Post- Test Means | 6.00 | 5.66 | 7.20 | 3.40 | BG | 113.40 | 3 | 37.80 | 59.90* |
| | | | | | WG | 35.33 | 56 | 0.63 | |
| Adjusted Post- Test Means | 5.98 | 5.66 | 7.20 | 3.41 | BG | 110.70 | 3 | 36.90 | 57.70* |
| | | | | | WG | 35.17 | 55 | 0.64 | |

* Significant at 0.05 level

(Table Value for 0.05 Level for df 3 & 56 = 2.76)

(Table Value for 0.05 Level for df 3 & 55 = 2.77)

Results of playing ability

An examination of table - I indicated that the pre test means of interval training, swissball training, combined interval and swissball training and control groups were 3.60, 3.46, 3.33 and 3.13. The F-ratio for the pre-test was 0.82 and the table F-ratio was 2.76. Hence the pre-test mean F-ratio was insignificant at 0.05 level of confidence for the degree of freedom 3 and 56. The post-test means of the interval training, swissball training, combined interval and swissball training and control groups were 6.00, 5.66, 7.20 and 3.40. The acquired F-ratio for the post-test was 59.90 and the table F-ratio was 2.76. Hence the post-test mean F-ratio was

significant at 0.05 level of confidence for the degree of freedom 3 and 56. The adjusted post-test means of the interval training, swissball training, combined interval and swissball training and control groups were 5.98, 5.66, 7.20 and 3.41. The acquired F-ratio for the adjusted post-test means was 57.70 and the table F-ratio was 2.77. Hence the adjusted post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 3 and 55. Since noteworthy contrasts were recorded, the outcomes were subjected to post hoc investigation utilizing Scheffe's post hoc test. The outcomes were displayed in Table - II.

Table 2: The scheffe's test for the differences between the adjusted post-test means on playing ability

| Adjusted Post-Test Means | | | | Mean Difference | Confidence Interval |
|--------------------------|------|--------|------|-----------------|---------------------|
| ITG | SBTG | CISBTG | CG | | |
| 5.98 | 5.66 | --- | --- | 0.32 | 0.84 |
| 5.98 | --- | 7.20 | --- | 1.22* | |
| 5.98 | --- | --- | 3.41 | 2.57* | |
| --- | 5.66 | 7.20 | --- | 1.54* | |
| --- | 5.66 | --- | 3.41 | 2.25* | |
| --- | --- | 7.20 | 3.41 | 3.79* | |

There was noteworthy dissimilarity stuck between the adjusted means of adjusted means of interval training and interval and swissball training (1.22), interval training with control group (2.57), swissball training with combined interval and swissball training (1.54), swissball training with control group (2.25) and combined interval and swissball training and control group (3.79). There was no significant difference between interval training and swissball training group (0.32) at 0.05 level of confidence with the confidence interval value of 0.84.

Conclusion

Results of the present study explain clearly that in case of playing ability, the observed results significantly favoured the experimental groups namely interval training group, swissball training group and combined training group as compared to control group. Similarly the impact of experimental group of was found as significantly higher than control group on playing ability. Further CISBTG showed superior performance over to ITG, STG and CG on playing ability. It was concluded that shuttle badminton players should combine both interval and swissball training for better performances.

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