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# Effect of High Intensity Interval and Game Specific Training on Skill Related Performance Variable Among School Level Handball Players

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**ABSTRACT**

The benefits of high intensity interval training include burning calories, losing weight, and building muscle. HIIT can also help you lower blood pressure and blood sugar, while improving oxygen and blood flow. HIIT may also benefit brain health by improving mental health and memory. The present study is investigated to the effect of high intensity interval and game specific training on skill related performance variable among school level handball players. The research scholar reviewed the available literature pertaining to the interval training, from books, journals, periodicals, magazines and research papers. There were studies proved that the interval had positive effects on certain components of game specific variable in front shoot, accuracy throw speed pass of school level handball players. The age group 15 – 17 and selected Dindugul region, Tamilnadu, India school level handball players. Statistically significant improvements in standard scores in front shoot, accuracy throw speed pass were comparable between the three groups of handball players. Front shoot, accuracy throw speed pass improved in game specific training group the control group. The research on short - duration intervention in establishment players may help to organize the role of game specific training in conventional handball players to maintain proper alignment and posture during movement for training.

**KEY WORDS:** Physical fitness, speed, front shoot, accuracy throw speed pass, Game specific training, interval training

## INTRODUCTION

One method of training that allows appropriate metabolic systems to be stressed is interval training. Interval training is based on the concept of more work which can be performed at higher exercise intensities with the same or less fatigue compared to continuous training. The theoretical metabolic profile for exercise and rest intervals stressing aerobic metabolism, fast glycolysis, and the phosphagen system is based on the knowledge of which energy system predominates during exercise and time of substrate recovery.

Overall, HIIT produces many of the same health benefits as other forms of exercise in a shorter amount of time. These benefits include decreases in body fat, heart rate, and blood pressure. HIIT may also help lower blood sugar and improve insulin sensitivity.

Game based training is a training method that uses games and other interactive activities to teach learners new skills and knowledge. Trainers can create a more enjoyable learning experience, which can help learners stay motivated and engaged throughout the training process

## METHODOLOGY

The Methodology for the present investigation is on the effect of high intensity interval and game specific training on skill related performance variable among school level handball players**.** The purpose of study 45 male handball students selected from various schools in Dindigul district, TamilNadu. Their age ranges between 15 to 17 years .the subjects were randomly assigned into two groups, namely experimental group I (interval training) Experimental group II game specific training and control group. In order to make sure the full cooperation from the subjects, the scholar had a meeting with them and explained the purpose of the research. It was made clear by explanation in order to ascertain that there was no uncertainty among the players regarding the effort, which they had to put in for the successful completion of this study. Experimental group I participated for a period of eight weeks interval training experimental group II participated for a period of eight weeks game specific training and control group have no any specific training. The subjects were tested on selected criterion variable of front shoot, accuracy throw speed pass before the training and after 8 weeks of training.

## TRAINING PROCEDURE

Experimental Group-I undertake interval training experimental group II undergone game specific training and the control group were explored to any specific training programme. The experimental treatments namely interval training and game specific training were administrated for duration of eight weeks and the number of session per week was confined to three alternative days and each session lasted 60 minutes.

## STATISTICAL TECHNIQUE

The collected data from the two groups prior to and after the experimental treatments on selected variables were front shoot, accuracy throw speed pass were statistically analyzed by using the statistical technique of analysis of covariance (ANCOVA). Whenever the 'F' ratio for adjusted post-test means was found to be significant, scheffe's post hoc test was followed as a post hoc test to determine which of the paired means difference was significant. In all the cases 0.05 level of confidence was fixed as a level of confidence to test the hypotheses.

## RESULTS AND ANALYSIS

The influence of independent variables on each of the criterion variables is analyzed and presented below.

The training period was limited to eight weeks. The dependent variables selected for this study was skill related performance variable of front shoot, accuracy throw speed pass. All the subjects were tested prior to and immediately after the experimental period on the selected dependent variables.

The data obtained from the experimental groups before and after the experimental period were statistically organized with dependent 't'-test and Analysis of covariance (ANCOVA). Whenever the 'F' ratio for adjusted post-test means was found to be outstanding performance study. The Scheffe's Post hoc test was organised to determine the paired mean differences. The level of confidence was fixed at 0.05 level for all the cases.

**TABLE - 1**

**ANALYSIS OF COVARIANCE AMONG INTERVAL TRAINING GROUP GAME SPECIFIC TRAINING GROUP AND CONTROL GROUP ON FRONT SHOOT**

| | Game specific Training Group | Interval Training Group | Control Group | Source of Variance | Sum of square | df | Mean square | F-value |
|---|---|---|---|---|---|---|---|---|
| **Pre test Mean** | 4.33 | 4.46 | 4.40 | Between | 0.133 | 2 | 0.067 | 0.26 |
| | | | | Within | 10.667 | 42 | 0.254 | |
| **Post test Mean** | 6.13 | 6.06 | 4.46 | Between | 26.711 | 2 | 13.356 | 21.24* |
| | | | | Within | 26.400 | 42 | 0.629 | |
| **Adjusted post mean** | 6.19 | 6.01 | 4.46 | Between | 26.918 | 2 | 13.459 | 29.51* |
| | | | | Within | 18.693 | 41 | 0.456 | |

**FIGURE – 1**

**THE ADJUSTED POST TEST MEAN VALUES OF INTERVAL TRAINING GROUP I GAME SPECIFIC TRAINING GROUP II AND CONTROL GROUP ON FRONT SHOOT**

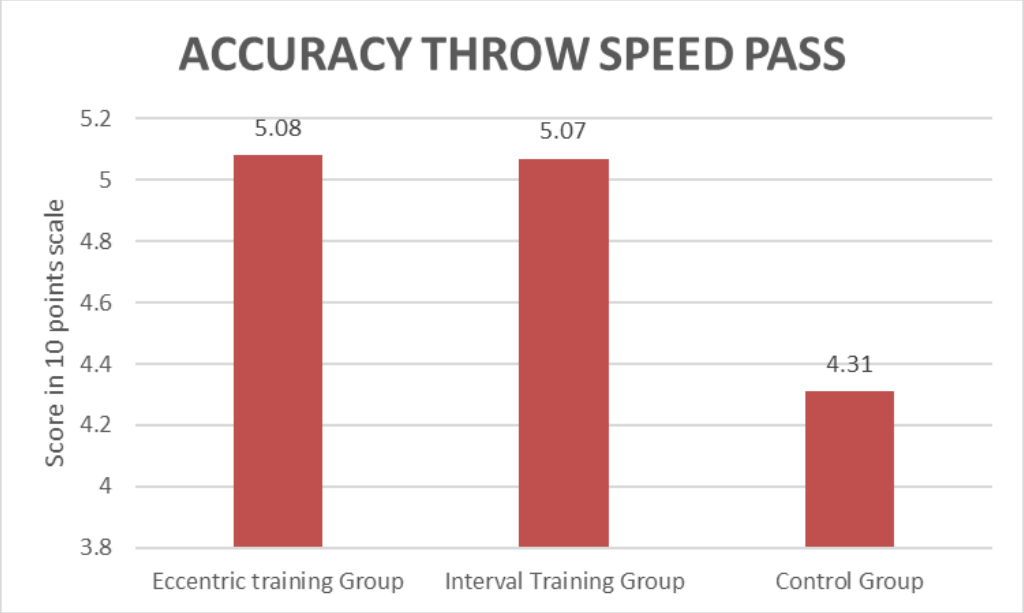
**TABLE - 2**

**ANALYSIS OF COVARIANCE AMONG INTERVAL TRAINING GROUP GAME SPECIFIC TRAINING GROUP AND CONTROL GROUP ON ACCURACY THROW SPEED PASS**

| | Game specific Training Group | Interval Training Group | Control Group | Source of Variance | Sum of square | df | Mean square | F-value |
|---|---|---|---|---|---|---|---|---|
| **Pre test Mean** | 4.40 | 4.40 | 4.46 | Between | 0.044 | 2 | 0.022 | 0.08 |
| | | | | Within | 10.993 | 42 | 0.260 | |
| **Post test Mean** | 5.8 | 5.06 | 4.33 | Between | 16.133 | 2 | 8.067 | 18.15* |
| | | | | Within | 18.667 | 42 | 0.444 | |
| **Adjusted post mean** | 5.08 | 5.07 | 4.31 | Between | 16.552 | 2 | 8.276 | 19.31* |
| | | | | Within | 17.567 | 41 | 0.428 | |

**FIGURE – 2**

**THE ADJUSTED POST TEST MEAN VALUES OF INTERVAL TRAINING GROUP I GAME SPECIFIC TRAINING GROUP II AND CONTROL GROUP ON ACCURACY THROW SPEED PASS**




## CONCLUSION

The findings of the study showed that there was a statistically significant improvement in the physical fitness variable of front shoot, accuracy throw speed pass as compared to control group.

1. The results of the study shows that the experimental group-I that had undergone game specific training group and interval training group, improved skill related performance variables in front shoot, accuracy throw speed pass of handball players on control group.
2. The results of the study shows that the experimental group-I that had undergone game specific training group better than interval training group improved by skill related performance variables in front shoot, accuracy throw speed pass of handball players.

***RECOMMENDATIONS***

It is recommended that coaches and physical educators in the game of handball should give due to include game specific training in their training schedules.

In the physical exercise, while designing the training programme the effect of varied training modalities is explained on positively on physical fitness variables of handball players, the physical education teachers and coaches can prefer this type of training so as to achieve aim in time.

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