

P-ISSN: 2394-1685 E-ISSN: 2394-1693 Impact Factor (ISRA): 4.69 IJPESH 2016; 3(3): 630-632 © 2016 IJPESH www.kheljournal.com Received: 28-03-2016 Accepted: 30-04-2016

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Comparative Effect of continuous training and Interval Training on Body composition cardiovascular endurance and muscular endurance among inter collegiate athletes

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Abstract

Continuous training is when low- to mid-intensity exercises are performed for more than 20 minutes without resting intervals. Interval training is alternating between higher and lower intensity exercise. Interval training allows you to train at a higher intensity for a greater time than a single, continuous high intensity bout. The aim of the present study was to compare the effect of continuous training and interval training on body composition cardiovascular endurance and muscular endurance among intercollegiate athletes. To achieve the purpose, thirty male Inter collegiate athletes from ANJAC, Sivakasi were selected randomly as subjects. The age of the subjects ranged from 19 to 25 years. The experimental design selected for this study was pre and posttest randomized design. The data were collected from each subject before and after the training period and statistically analyzed by using dependent 't' and test analysis of covariance (ANCOVA). Experimental group namely continuous training and interval training groups achieved significant improvement on body composition, cardiovascular endurance and muscular endurance. Significant differences were found between continuous training and interval training groups towards improving the selected criterion variables such as body composition, cardiovascular endurance and muscular endurance. Continuous training had a better difference on the improvement of selected dependent variables namely body composition, cardiovascular endurance and muscular endurance.

Keywords: Interval Training, Continous Training, Body composition and Endurance

1. Introduction

Continuous training is when low- to mid-intensity exercises are performed for more than 20 minutes without resting intervals. Generally, this type of training is used to prepare the body for sustained workouts such as marathon and triathlon, but can also be effective for more casual athletes. It allows the body to work from its aerobic energy stores to improve overall fitness and endurance.

Interval training is alternating between higher and lower intensity exercise. Interval training allows you to train at a higher intensity for a greater time than a single, continuous high intensity bout. I believe that interval training is the most important workout for any runner, from absolute beginner through to elite. Interval training provides greater results in fitness for the time/effort than any other approach, but remember to practice Safe Speed work.

1.1 Statement of the problem

The aim of the present study was to compare the effect of continuous training and interval training on body composition cardiovascular endurance and muscular endurance among intercollegiate athletes.

2. Hypotheses

- 1. There would be significant improvement on the selected dependent variables due to the effect of continuous training and interval training.
- 2. There would be significant difference on selected dependent variables among the selected Independent variables.

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3. Methodology

3.1 Subjects

To achieve the purpose, thirty male Inter collegiate athletes from ANJA College, Sivaksi were selected randomly as subjects. The age of the subjects ranged from 19 to 25 years.

B) Selection of Variables

Dependent Variables: Body composition, Cardiovascular Endurance and Muscular Endurance were selected as dependent variables.

Independent variables: Continuous training and interval training were selected as independent variables.

c)Selection of Tests			
SI. No	Variables	Test Item	Unit of Measurements
1	Body composition	Skin fold caliber	In mm
2	Cardiovascular endurance	12 min cooper run/walk	In meters
3	Muscular Endurance	Bent Knee Sit Ups	In Numbers

Fig 1

D) Experimental design & statistical procedure

The experimental design selected for this study was pre and posttest randomized design. The data were collected from

each subject before and after the training period and statistically analyzed by using dependent 't' and test analysis of covariance (ANCOVA).

4. Results and Discussion

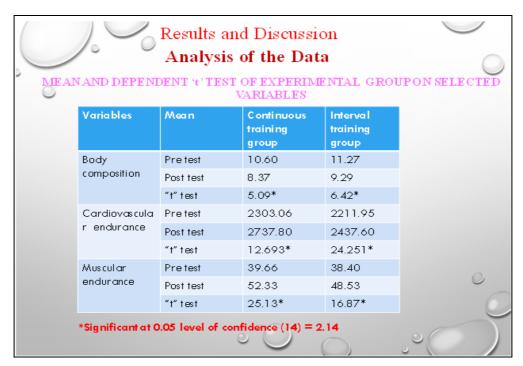


Fig 2

Analysis of covariance (ancova) of experimental groups on selected variables



Fig 3

5. Conclusion

- Experimental group namely continuous training and interval training groups achieved significant improvement on body composition, cardiovascular endurance and muscular endurance.
- Significant differences were found between continuous training and interval training groups towards improving the selected criterion variables such as body composition, cardiovascular endurance and muscular endurance.
- Continuous training had a better difference on the improvement of selected dependent variables namely body composition, cardiovascular endurance and muscular endurance.

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