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**"INFLUENCE OF INTERVAL TRAINING ON CARDIOVASCULAR ENDURANCE  
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Kala Mahavidyalaya, Nandurghat, Tal. kej Dist- Beed.****ABSTRACT:**

*This study aims to examine the effect of interval training on cardiovascular endurance among college athletes in Beed city. A sample of 40 college-level athletes was divided into experimental and control groups. The experimental group followed an 8-week interval training program, while the control group followed a regular routine. The pre- and post-test results showed significant improvement in the cardiovascular endurance of the experimental group, measured using the Cooper 12-minute run test.*

**KEYWORDS :** *regular routine, experimental group, cardiovascular endurance.***INTRODUCTION**

Cardiovascular endurance is essential for overall athletic performance. Interval training—alternating between high-intensity and low-intensity exercise—has been widely recognized for enhancing aerobic capacity and endurance. This study investigates its specific impact on college athletes' cardiovascular health in Beed city.

**NEED AND IMPORTANCE OF THE STUDY**

- To improve athletic performance at the college level.
- To explore effective training methods suitable for college athletes.
- To develop scientific training strategies tailored to local college needs.
- To contribute to sports science research in rural and semi-urban Indian contexts.

**OBJECTIVES OF THE STUDY**

1. To measure cardiovascular endurance levels of college athletes before and after interval training.
2. To compare endurance levels between experimental and control groups.
3. To determine the effectiveness of interval training over regular training.
4. To assess physiological adaptations due to interval training.
5. To provide data-based suggestions for college-level athletic training programs.

**Assumptions**

- The subjects will cooperate sincerely.
- Testing tools will be reliable and valid.
- Interval training will have a measurable impact on endurance.

## Hypothesis

- **H<sub>0</sub> (Null Hypothesis):** There is no significant difference in cardiovascular endurance due to interval training.
- **H<sub>1</sub> (Alternative Hypothesis):** There is a significant improvement in cardiovascular endurance due to interval training.

## SCOPE AND LIMITATIONS

### Scope:

- Applicable to male and female athletes aged 17–21 years.
- Focus on endurance performance through field testing.

### Limitations:

- Limited to Beed city colleges.
- Environmental and dietary factors not controlled.

## RESEARCH METHOD

**Type:** Experimental method

**Design:** Pre-test and post-test with control group

### Research Design

Group	Pre-Test	Training	Post-Test
Experimental	Yes	Interval Training (8 weeks)	Yes
Control	Yes	Regular Training	Yes

### Sampling

- **Population:** College athletes in Beed city
- **Sample Size:** 40 (20 Experimental, 20 Control)
- **Sampling Method:** Purposive sampling

### Tools Used for Data Collection

- **Test:** Cooper 12-Minute Run Test (distance in meters)
- **Instrument:** Measuring tape, stopwatch, whistle
- **Statistical Tools:** Mean, Standard Deviation, t-test

### Data Analysis

Group	Pre-Test Mean (m)	Post-Test Mean (m)	SD	t-value	Significance
Experimental	2100	2450	135	4.21	Significant
Control	2120	2180	120	1.12	Not Significant

**Interpretation:** The experimental group showed a statistically significant improvement in endurance compared to the control group.

### Research Findings

- Interval training significantly improved cardiovascular endurance.
- Control group showed only marginal improvement.
- Structured training plans lead to measurable performance gains.

## CONCLUSION

The research confirms that interval training is an effective method to enhance cardiovascular endurance among college athletes. Implementing such programs can boost athletic development at the grassroots level in semi-urban settings like Beed.

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