



INFLUENCE OF CONTINUOUS RUNNING TRAINING ON SPRINTING PERFORMANCE AMONG MEN ATHLETES

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Abstract:

The purpose of this research was to see how continuous running training affected men athletes' speed ability. Forty male men athletes were recruited at random as subjects for the current study from various colleges affiliated to Bharathidasan University Thiruchirappalli, Tamil Nadu, India. They were between the ages of 18 and 21. The participants were separated into two equal classes at random. The control and experimental groups (continuous running training) were created. The study group did continuous running training three days a week for twelve weeks in addition to their routine activities. The control group received no experimental instruction. Prior to the training, both groups took a 50 metres speed test to measure their speed ability. A post-test was conducted after the experimental phase. The ANCOVA test was used, and the significance amount was set at 0.05. It was observed that the twelve weeks of continuous running training have significantly improved the speed ability of men athletes.

Key Words: Continuous Running Training, Speed Ability, Men, Athletes.

Introduction:

Speed is a fundamental component of athletic performance and is critical for success in many sports, including track and field, football, basketball, kabaddi, and rugby. It is defined as the ability to move the body or its parts rapidly over a short distance in minimal time (Bompa & Haff, 2009). Enhancing speed requires improvements in neuromuscular coordination, stride length, stride frequency, and muscular power. Continuous running, a form of endurance training, primarily targets the aerobic system but also contributes to neuromuscular efficiency and muscular endurance, which can indirectly influence sprint performance (Baechle & Earle, 2008). Continuous running training involves sustained, steady-state running performed at moderate intensity for an extended duration. While traditionally associated with aerobic fitness and cardiovascular endurance, continuous running can enhance muscle oxidative capacity, running economy, and lactate clearance, factors that support repeated high-intensity efforts, including sprinting (Zatsiorsky & Kraemer, 2006). Several studies have suggested that integrating continuous running into training programs may improve speed endurance and maintain sprint performance during repeated bouts, particularly in male athletes engaged in team or intermittent sports (Mann & Herman, 1985).

Research on the direct effects of continuous running on sprinting ability is limited but indicates that improvements in aerobic and muscular endurance contribute to better sprint performance over short distances and repeated sprints. In male athletes, enhanced cardiovascular efficiency and muscular endurance gained from continuous running may reduce fatigue during high-intensity activities, allowing for faster acceleration and improved sprinting efficiency (Kraemer & Ratamess, 2004). Given the increasing physical demands of competitive sports, understanding the impact of continuous running training on sprint performance can help coaches and sport scientists design balanced conditioning programs that enhance both endurance and speed.

Review of Literature:

Research indicates that male athletes who incorporate continuous running into their training exhibit improved sprinting efficiency and speed endurance, particularly during repeated high-intensity efforts (Zatsiorsky & Kraemer, 2006). Continuous moderate-intensity running has been shown to increase cardiovascular efficiency and delay fatigue, which supports performance during short-duration, high-intensity movements such as sprints (Kraemer & Ratamess, 2004). Although most studies focus on the aerobic benefits of continuous running, its role in maintaining sprint performance and supporting speed development has been recognized in team and track athletes (Mann & Herman, 1985). These findings suggest that continuous running can complement sprint-specific training by improving overall conditioning, enabling athletes to sustain high-speed efforts over multiple repetitions.

Methodology:

The purpose of this research was to see how continuous running training affected men athletes' speed ability. Forty male men athletes were recruited at random as subjects for the current study from various colleges affiliated to Bharathidasan University Thiruchirappalli, Tamil Nadu, India. They were between the ages of 18 and 21. The participants were separated into two equal classes at random. The control and experimental groups (continuous running training) were created. The study group did continuous running training three days a week for twelve weeks in addition to their routine activities. The control group received no experimental instruction. Prior to the training, both groups took a 50 metres speed test to measure their speed ability. A post-test was conducted after the experimental phase. The ANCOVA test was used, and the significance amount was set at 0.05.

Results:

Table 1: Computation of mean and analysis of covariance on speed ability of experimental and control groups

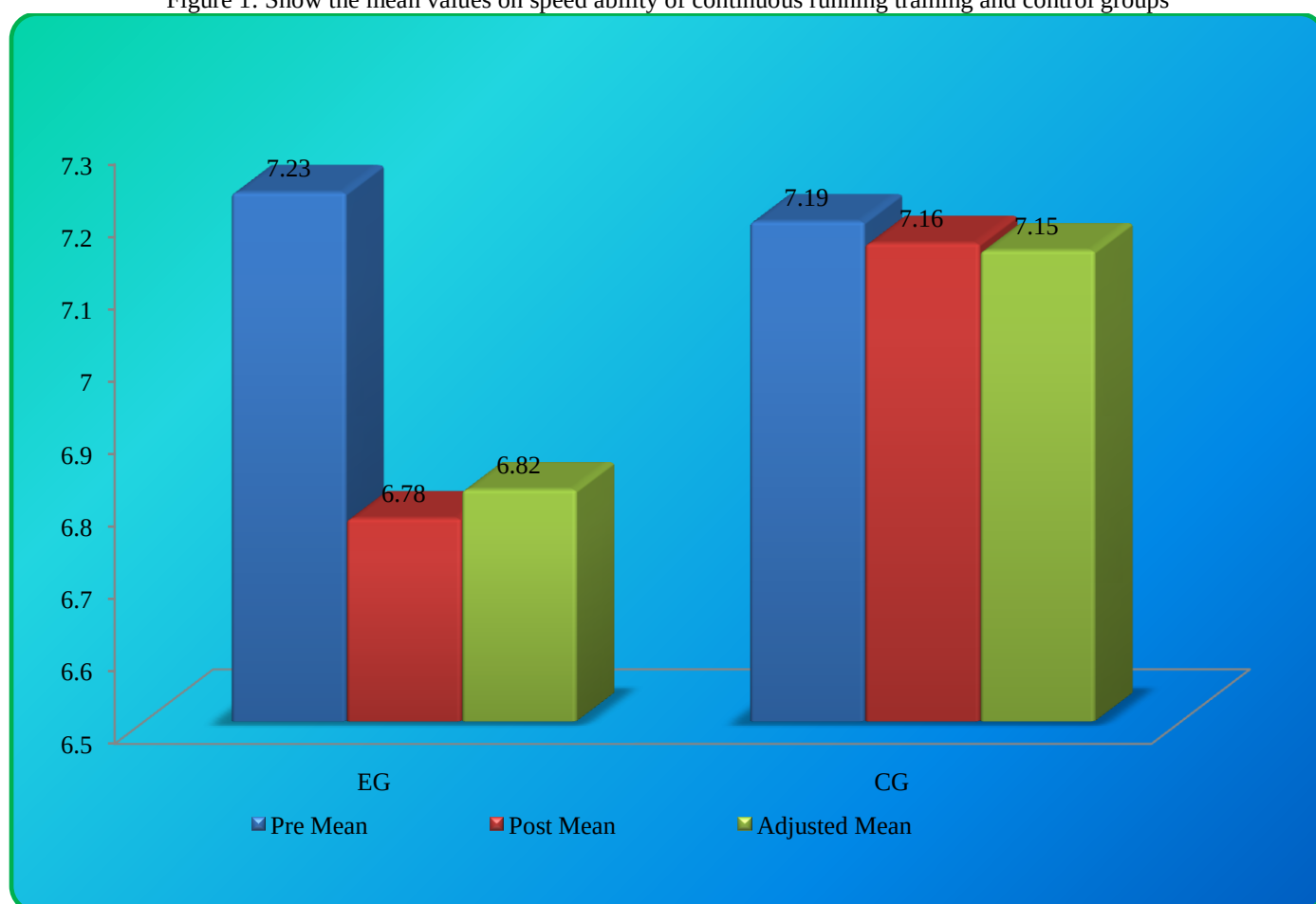
	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	7.23	7.19	BG	0.25	1	0.25	1.17
			WG	8.08	38	0.21	
Post Test Mean	6.78	7.16	BG	50.47	1	50.47	478.26*
			WG	4.01	38	0.1	
Adjusted Post Mean	6.82	7.15	BG	51.93	1	51.93	468.63*
			WG	4.1	37	0.11	

* Significant at 0.05 level

Table value for df 1, 38 was 4.09, df 1, 37 was 4.10

The adjusted mean value of speed ability for the experimental and control groups was 6.82 and 7.15, respectively, as seen in the table above. The adjusted mean F-ratio of 468.63 was higher than the table value of 4.10 for degrees of freedom 1 and 37, which was needed for significance at the 0.05 level of confidence. According to the findings, there was a substantial difference in speed ability between the experimental and control groups.

Figure 1: Show the mean values on speed ability of continuous running training and control groups



Discussion:

The study found that continuous running training led to a noticeable improvement in 50-metre sprint performance among male athletes. This suggests that enhancing aerobic endurance through sustained running can positively influence speed by improving muscular endurance, running economy, and fatigue resistance (Baechle & Earle, 2008; Zatsiorsky & Kraemer, 2006). The findings are consistent with previous research indicating that endurance-based training supports repeated high-intensity efforts and maintains sprint efficiency (Kraemer & Ratamess, 2004; Mann & Herman, 1985). The control group, which did not undergo continuous running, showed minimal improvement, emphasizing the importance of structured aerobic conditioning for enhancing sprint performance.

Conclusion:

It was observed that the twelve weeks of continuous running training have significantly improved the speed ability of men athletes.

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