

Efficiency of Energy Expenditure from Completing the 12-3-30 Workout as Compared to a Self-Paced Run

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Abstract

As social media becomes a leading source for lifestyle tips and tricks, it comes at no surprise that fitness trends are booming on platforms such as TikTok. One trend in particular, the 12-3-30 workout, gained popularity from its claims to be more effective than running for burning calories, and therefore body fat. However, the academic research behind these claims was lacking, leaving questions about how trustworthy social media trends like this truly are. **Purpose:** Our team aimed to collect data on energy expenditure during a single round of the 12-3-30 workout and a single self-paced run from each participant. The purpose of this study was to understand if this workout was more effective than running, as advertised on TikTok. **Method:** Five participants (1F, 4M, age = 33.4 ± 10.4 years, height = 179.8 ± 5.2 cm, body mass = 85.2 ± 17.6 kg) were tested. They were asked to complete one round of the 12-3-30 workout in which they walked on a treadmill at a 12 percent incline and a speed of 3.0 MPH for 30 minutes. Participants then returned seven days later to complete a self-paced run for the duration of time that it took them to burn the same amount of calories they did from the 12-3-30 workout. Metrics from both sessions were collected using the Parvo Medics Metabolic Measurement System. Efficiency of energy expenditure between the sessions was measured by conducting a one-tailed paired t-test on the kilocalories per minute burned by each participant in both sessions, along with the duration of each session. Significance was accepted at $p < 0.05$. **Results:** The 12-3-30 workout produced an average energy expenditure of 10.992 ± 2.516 kcal/min, while the self-paced run produced an average of 13.442 ± 2.112 kcal/min ($p = 0.0066$) revealing there is a significant difference in the number of calories burned per minute while performing each exercise. Additionally, the 12-3-30 workout took 30 minutes for each participant to complete, while the duration of the self-pace run produced an average of 24.45 ± 2.716 minutes ($p = 0.005$) revealing there was a significant difference in session duration between the 12-3-30 workout and a self-paced run to burn the same number of calories. **Conclusion:** From this data, we rejected the hypothesis that the 12-3-30 workout is more effective regarding energy expenditure per minute than a self-paced run. An analysis on both kcal/min and session duration revealed significant results that indicated a self-paced run will still burn calories faster than a session of the 12-3-30 workout. **Practical Application:** Those looking to burn calories quickly should be cautious about giving up running for the 12-3-30 workout. This study also lends to the idea that it is important to test trends like this in a scientific setting before fully trusting their claims. However, there is still room for discussion and further study into how this workout and others like it could be beneficial regarding physiological impact and rate of perceived exertion (RPE).

Introduction

- Social media is becoming increasingly influential in the fitness and wellness community
- The 12-3-30 workout has made claims to be more effective at burning calories than running, but is this true?

Methods

- 5 participants (n = 1 female, 4 males)
- Testing was completed over two sessions, seven days apart
 - First session: 1 round of 12-3-30
 - Second session: self-paced run
- Metabolic data was collected using the Parvo Medics Metabolic Measurement System to determine which of the two sessions produced the most effective method for caloric expenditure

Results

- 12-3-30
 - Average expenditure of 10.992 ± 2.516 kcal/min
 - 30 min duration for every participant
- Self-paced run
 - Average expenditure of 13.442 ± 2.112 kcal/min
 - Average duration of 24.45 ± 2.716 minutes

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Discussion

- The self-paced run was more effective at burning calories in a shorter period of time than 12-3-30
- Claims like these must be taken with great caution, encouraging those who utilize social media to do extra research before trusting what they see
- There is growing room for scientific research to validate or disprove these claims as social media gains influence in the fitness community
- Those looking to burn calories quickly will likely see better results with a self-paced run
- However, fad workouts like this can be great for encouraging more people to become physically active. At the end of the day, the best exercise is the one you'll do! If 12-3-30 is a more desirable workout that gets a greater portion of the population to be physically active, this could be a great win.

