

Factors Associated with Satisfaction and Success in Ultra-Marathons of 200 Miles or Greater

Liam Lynch, B.S.¹, Keara Ginell, A.B.², Daniel Whibley, Ph.D.²

¹University of Kansas Medical Center, Kansas City, KS

²University of Michigan, Ann Arbor, MI, Department of Physical Medicine and Rehabilitation

Received Aug. 21, 2024; Accepted for publication Aug. 26, 2024; Published online Aug. 27, 2024

<https://doi.org/10.17161/kjmvoll7.22674>

Introduction. Ultra-marathons encompass distances greater than the traditional 26.2 miles; often 200 miles or greater, lasting days at a time. This cross-sectional study aimed to identify factors associated with ultra-marathon performance and satisfaction.

Methods. An electronic survey was distributed to 200-plus mile race competitors, including questions about demographics, ultramarathon experience, sleep-related factors, race strategies, and adverse events. Continuous variables were summarized as mean (standard deviation) and categorical variables as N (%). Logistic regression was used to quantify associations with five goal-related outcomes: finishing in the top 25%; finishing in the bottom 25%; exceeding performance expectations; underperforming against expectations; and being satisfied with performance.

Results. Of 117 respondents (mean age 47.2 (SD 11.0), 67.0% male), factors significantly associated with finishing in the top 25% included having a performance-related goal, sleeping ≥ 7 hours the night before the race (compared to < 7 hours), and having a healthy BMI (compared to BMI > 25). Finishing in the bottom 25% was associated with a smoking history, experiencing a sleep-related adverse event, sustaining an injury, sleeping < 7 hours during the race, and not consuming a caffeinated beverage during the race. A lower likelihood of exceeding race expectations was observed for runners screened as having subclinical/clinical insomnia. A lower likelihood of race satisfaction was associated with regularly drinking alcohol (weekly).

Conclusions. This study has identified potentially modifiable factors related to ultramarathon outcomes. Future longitudinal research should ascertain whether optimizing sleep improves ultramarathon performance and could also help determine any causal role of caffeine or alcohol consumption on outcomes.