Psychological Predictors in Performance: An Exploratory Study of a Virtual Ultra-Marathon

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Abstract: Background: The COVID-19 pandemic caused the cancellation of many large-scale in-person sporting events, which led to an increase in the availability of virtual ultra-marathons. This study intended to assess how participation in virtual long distances races relates to levels of physical activity for an extended period of time. Moreover, traditional ultra-marathons are known for being not only physically demanding, but also mentally and emotionally challenging. A second component of this study was to assess how psychological contructs related to emotion regulation and mental toughness predict overall performance in the sport. Method: 83 virtual runners participating in a four-month 1000-kilometer race with the option to exceed 1000 kilometers completed a questionnaire exploring demographics, their performance, and experience in the virtual race. Participants also completed the Difficulties in Emotions Regulation Scale (DERS) and the Sports Mental Toughness Questionnaire (SMTQ). Logistics regressions assessed these constructs' utility in predicting completion of the 1000-kilometer distance in the time allotted. Multiple regression was employed to predict the total distance traversed during the fourmonth race beyond 1000-kilometers. Result: Neither mental toughness nor emotional regulation was a significant predictor of completing the virtual race's basic 1000-kilometer finish. However, both variables included together were marginally significant predictors of total miles traversed over the entire event beyond 1000 K (p = .051). Additionally, participation in the event promoted an increase in healthy activity with participants running and walking significantly more in the four months during the event than the four months leading up to it. Discussion: This research intended to explore how psychological constructs relate to performance in a virtual type of endurance event, and how involvement in these types of events related to levels of activity. Higher levels of mental toughness and lower levels in difficulties in emotion regulation were associated with greater performance, and participation in the event promoted an increase in athletic involvement. Future psychological skill training aimed at improving emotion regulation and mental toughness may be used to enhance athletic performance in these sports, and future investigations into these events could explore how general participation may influence these constructs over time. Finally, these results suggest that participation in this logistically accessible, and affordable type of sport can promote greater involvement in healthy activities related to running and walking.

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